

CORNISH NOTES (NEW SERIES).—

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CORNISH NOTES—NEW SERIES—NO. IV.

BY J. Y. WATSON, F.G.S., ETC.

I do not often read prospectuses, and when I do I seldom regard them; but travelling by rail one day from Tavistock to Plymouth my attention was called to that of the *West Cornwall Mining Company*, and in consequence I enquired a little about it when I got to the neighbourhood. There are some very respectable names in the prospectus; and as I am sure they would not willingly mislead the public, they will be obliged to me for calling attention to one or two rather extraordinary statements. In the first place, the company is formed to re-work, as I understand, the *East Wheal Busy Mine*, abandoned about four years ago; perhaps it was neither vigorously nor properly worked at that time, and may still be a good speculation, but I am told the sets cost the present promoters some 300*l.* or 400*l.*, and they ask the public 7000*l.* for them! They also say the mine is situated in the centre of one of the richest mineral districts in the county of Cornwall, being surrounded on every side by mines which have yielded enormous quantities of ore, and paid vast profits, and the following, among others, are mentioned as the great baits:—Great Consols, 1,000,000*l.* profit; United Mines, 500,000*l.*; Clifford, 100,000*l.*; Great Wheal Busy, great profits in former workings, now yielding immense returns," &c. Great Consols, United and Clifford are now the Clifford Consolidated Mines, and are two miles, I suppose, from East Wheal Busy, and in a different parish and run of ground. I might indeed, as well go into Cornwall and say I must be a rich man because my office is "surrounded" by Rothschilds, Barings, and other millionaires, as for this company to found their prospects of success on Clifford and Consols! East Wheal Busy is scarcely surrounded by rich mines in the way the words would seem to imply; the adjoining mine is Great Wheal Busy, that mine which, according to the prospectus, is now "yielding immense returns," and which was put to work a few years ago by a London company, who have to this time paid up 90,000*l.* in calls, and returned, I suppose, not less than 150,000*l.* worth of copper ores, without one penny profit. The mine has, in fact, swallowed up nearly a quarter of a million of money during the present working, and only just coming into profits, and yet the public is told East Wheal Busy can be fully opened out and proved for 15,000*l.* Perhaps the question is, what will the 15,000*l.* prove? As I said before, the mine may be, and I do not doubt it is, a fair speculation, but the public, who go into it with feelings excited by the inflated statements in the prospectus, will meet with disappointment if not loss. In this way I heard it spoken of by many respectable men in Cornwall, who consider, and rightly, that great injury is done to legitimate mining, and to the county at large, by the enormous premiums obtained from the public through such statements as those to which I have referred. When a mine has been proved productive, or is a paying concern, there will even then be wide differences of opinion as to its true value and prospects; but there is, in that case, a market test, and something to judge from beyond mere "tradition" to warrant the price.

A far better speculation, and one legitimately introduced, is *WHEAL LOVELL* (tin), near Helston, which Mr. Carne, of Falmouth, is bringing out. The mine made very large returns, and paid dividends, but was abandoned in 1850, in consequence of the low price of tin, then 39*l.* to 48*l.* per ton; and there is a run of 100 fathoms of unexplored ground eastward, below the 74, and much more to the western boundary. There is a 50-inch pumping-engine, with three boilers, now at work on the mine, a 17-inch steam-whim, 24-inch steam-stamps, with 24 heads, extensive floors, machinery, erections, &c., for tin dressing on a large scale, the whole of which could not be put up for less than 50,000*l.* to 10,000*l.*, but was all purchased by Mr. Carne for 1610*l.*; for this he does not charge one penny profit or premium, and the shares have all, or nearly all, been taken on the spot. I refer to it as a contrast to the manner in which the East Busy is brought out.

TAIL-PIECES.—I was sorry to hear that the operations at the old *TAMAR MINES*, which I described in my former Notes, when they were making a profit of 300*l.* per month, were being very much curtailed. The levels were driven under the bed of the river to the extent of the boundary, and as Mr. Coryton refused to grant the ground beyond, there was, I suppose, no alternative but to stop the deep levels, and work away the lead where it could be found.

NEW SOUTH TAMAR.—The lode has not yet been cut here, and seems to have been missed rather unaccountably. At present about 12 men are employed, and the agencies something like 300*l.* a year.

NEW CROW HILL, near St. Austell.—The shaft was sunk here to the 70, but the ore dipped away east very fast, and the deep workings were suspended some time ago. The 55 fm. level has been driven east 60 fms., lode half the distance poor, and then 2 to 3 fms. wide, with good branches of lead, blonde, and muntic; in the back of this level there are two stopes working. In 1862, 84 tons were sold, for 512*l.* 18*s.* 6*d.* This year, six months have produced 31 tons, yielding 501*l.* 19*s.* 6*d.* The 35 fm. level has been driven east 16 or 17 fms. The present deposits of lead are found in connection with a large slide, which underlies south, and dips very fast east, and the chief points are driving the 35 and 55 fm. level still further east, to see whether the lode improves, and if it does, as expected, another shaft must be sunk eastward.

SOUTH CARN BREA is making large returns of tin; but the costs of working are very heavy, and the mine is very far from having realised the high expectations formed of it.

WEST TREVELYAN is poor; but the lode looks better in the bottom of the shaft, and may ere long make a change for the better in general prospects.

WHEAL TREMAYNE, I understand, was looking better, and likely to pay well again.

NEW WHEEL MARTHA.—The purser has written me to say that, in his opinion, I have made a few errors in my "Notes" upon this mine, and which he "will endeavour to correct." In the first place he says, "the company was wound-up voluntarily." "The new company bought the mine, &c., for 5000 paid-up shares, and undertook to pay all liabilities." I stated in my remarks that it was a difficult matter to comprehend the exact mode of winding-up; and this version of the purser's does not in any way affect my statement. The "voluntary" winding-up was a sort of *volens non volens* affair—"no compulsion, only you must"; and it shows—as I wished to illustrate last week—that the Limited Liability Act, when the capital named is too small, is not calculated to benefit the *first subscribers*. The purchasers, also, having undertaken to pay all liabilities, does not differ from my statement; if, as I was informed by the purser himself, the *only capital remaining* was 1250*l.*, or 5*s.* per share. In the second place, the run of the lode east is said to be 150 fms. from the 64, and over 300 fms. west. Again, I was told by an agent who had inspected the mine, that the lode in the upper levels was so hard, that where it had to be cut through, it had cost as much as 50*s.* per fathom. The purser informs me, however, that "20*s.* per fm. is the most ever given." Perhaps, since the new company have worked—for I stated that *fluor-spar* was taking the place of the *mundic* in depth, making the lode easier to work, than when in the upper levels it had cost as much as 50*s.* per fm. to cut entirely through it.

The returns for the two months represented by the last sale of ore, he says, not only met the working cost, but also all the merchants' bills, and left a small balance on the credit side. In my remarks I alluded to the whole costs under the head of "working costs," as I was told they were rather over 600*l.* per month, including supplies, and the last sale of ores referred to realised 1210*l.* Lastly, "there is not now a penny owing at the mine, and a more satisfied or better conducted lot of men than we have is scarcely to be met with." I do not suppose the men would openly complain to the purser, but the very first thing I heard on approaching the mine was that the men had been very dissatisfied, because the pay-day having been on the Saturday week previous, they had not received their money till the Monday week following it. Under the old company I was told this was a very common occurrence, but it had caused some surprise with regard to the new company, and I mentioned it merely in contrast to the fact of the mine selling for 50,000*l.* in London. It will be seen from these remarks that my "errors" were not very important, and I only hope the present appearances of the mine may continue, and that they may "well repay the shareholders before long."

I have been told by one party interested in the company that all the 5000 shares of the new issue were not allotted originally, and that some of them had since been sold at a good premium to pay off the old liabilities. If

this were the case it is important that the shareholders should have an account of all unallotted shares, and the prices they have since realised. My statement that only 5*s.* per share, or 1250*l.*, remained to the company out of the whole capital, and which I considered, and still consider, totally inadequate to bring the mine to a profitable state for the shareholders, was made, as I said before, upon the authority of the purser.

I have heard a great deal said, in consequence of my "Notes," about the reserves at EAST CARADON; I stated, however, that I gave the amount upon the authority of Capt. Seccombe, and that gentleman has since gone further into the matter for some friends, and adheres to the valuation of 100,000*l.*, and also to the statement that more ore is being discovered than taken away. Others, again, I am told state that the reserves are not worth 50,000*l.*, and the mine is being fast worked out. In reference to the ore, and the difficulty of any *casual* inspector putting the proper value upon it underground, I must say that when seen at surface the stuff that fetches 5*s.* per ton looks more like road-scrapings than anything else, and is sent to pile with very little dressing, on account of the mixture of black ore, looking like occasional patches of soot, which would otherwise be washed away. Two years ago there were piles of grey and variegated ores, very rich, on the floors; but the lode from the 60 to the 70 seems to be in a transition state, and yellow copper ore is rather predominating, so that the agents think in the 80 there will be a better lode, and one more likely to continue rich in depth, than has been seen in any of the upper levels. Others will tell us, also, that the next level will be a blank, and among these different rumours, it appears to me to be the wisest plan to believe those whom we know and think we can trust.

Many people have enquired of me the best route to take in visiting the mines, and I strongly advise everyone interested in mining property to visit it occasionally, and they will learn more in half-an-hour's conversation with the agents, and in looking over the mines and underground plans, than from a month's correspondence. As a rule, agents are very straightforward and communicative to those who visit the mines, even though they may have been told—

If you've a hole in a' y'ers coat,
I redo ye tent it;

A chiel's amang ye Strakin's notes,

And faith he'll print it.

Some, of course, are very cautious—especially those who receive orders from the secretaries in London (gentlemen who never job, or get the earliest information for their own benefit, of course) not to answer questions or give information except to parties having written orders, and even then it would be difficult to "fork" some of these men, pump them as you may, or get any real information from them, yet—

Whatever scopic may enquire for,

For every why they have a wherefore.

Others discreetly, or perhaps advisedly, hold their tongues altogether, and tell you nothing; and you can only judge of what they really know or mean by a strict scrutiny of their countenances when you ask them a leading question. This class reminds me very forcibly of the Almoner in the "Ingoldsby Legends":—

The Almoner he speaks no word,

He intimates no doubt,

But puts his thumb up to his nose

And spreads his fingers out.

As a body, however, mining agents who attend to their duties, and do not become "bal" sellers and mere reporters for the market, are a most intelligent, straightforward class of men, and, shareholders, as I said before, should visit them more frequently. For the Devon Consols and mines around them, the visitor should take his abode at the Bedford Hotel, Tavistock; but I would not advise anyone to go to Great Devon *first*—that mine must be seen *last*, or the others will be thought "flat, stale, and unprofitable." For the Caradon Mines, and the lead district of Trelawny, Mary Ann, &c., Webb's Hotel, Liskeard. The Callington Mines may be reached by a 10-mile ride from Plymouth, from whence also can be seen Bottle Hill and Wheal Sydney, and any mines on the Tamar. Going west to Redruth, go to Tabb's Hotel, and the principal mines around Carn Brea, &c., are within an easy drive. At Camborne, Tyack's Hotel is convenient for Dolcoath and surrounding mines—North Roskear, Seton, &c. A remarkably fine view is obtained from the top of Carn Camborne, and it will repay anyone for the trouble of a mile's walk from the town. In my last "Notes" I gave the following description of it; and, as it may be known to many of your present readers, I quote it here:—

I am writing this on the summit of Carn Camborne. Before me the blue sea, and the beautiful panoramic view in the world. By "richest," however, I do mean in beautiful and verdant scenery, such as a novelist would describe, for between the Bristol Channel and Carn Camborne I see nothing as far as the eye can reach from east to west but parched and barren ground, little mountains of rubbish, and tall, dark stacks of chimneys—I see, in fact, the richest mineral district in the world lying at my feet. I am looking upon mines from which scores of families have been enriched, and many beggarized. From up those dark shafts men have come, as working miners, with stones of ore in their pockets, the forerunners of fortunes which have made their descendants in some cases the largest landowners in the county, and in others men of mark, of rank, and title. And now, as I look upon the apparently quiet scene, and watch the heavy beams of the engines work lazily up and down, thousands upon thousands of men are burrowing under ground like moles—some seeking an *ignis fatuus*, others working by the light of a fainting candle the "keenly lode," and as they work enriching others, if not themselves. People may rail at mining as they will (and as they may have cause, perhaps, at sum "mining," as they sometimes hear in London), but what would England be without it? It is not only in itself a grand pursuit, but there is something exciting and even fascinating in it. The "captain," when he makes a rich discovery, is like a successful general, and, becomes at once a man of mark; and we, the adventurers, are like his victorious army, only we get better paid. Before I began moralising, I said that I was looking upon the richest mineral district in the world, and I am within the mark when I say that the group of mines before and around me have yielded mineral to the value or more than **FOURTY MILLIONS STERLING**.

Just at my feet are Stray Park and Camborne Vean, the latter worked without once stopping for 120 years, and yielding for copper in early times enormous returns, and more than 200,000*l.* in profit. Across the valley are the rich mines of West Seton, Wheal Seton, North Roskear, and the Croftys. The former is now one of the most productive copper mines in the county—and North Roskear in former times made a profit of 100,000*l.*, and the Croftys 300,000*l.* Close in to my right is Dolcoath (which has of itself, as Captain Charles Thomas informed me, sold tin and copper to the value of **FIVE MILLIONS STERLING**). Cook's Kitchen, which has returned almost as much; that Tincroft and Carn Brea. At my back, and almost within a stone's throw, are Wheal Harriet and Condurrow; and then to the east of these the rich groups of Illogan and Redruth—South Frances, Bassett, Buller, East Bassett, &c. In the immediate district before me the mines generally were remarkably rich for copper at shallow levels and down to a good depth, when the copper ore cut out and tin came in; and between the two epochs, as it were, the mines were poor. Some of them now, Stray Park for instance, are in the transition state. In Illogan and Redruth the mines mostly produced tin in the backs of the lodes and at shallow depths, and are rich for copper under it. Captain Charles Thomas, the most experienced agent in the county, in a small work, entitled "Remarks on the Geology of Cornwall and Devon," calculates that the Camborne, Illogan, Redruth, and Gwennap Mines, all comprised within a run of six miles in length and two and a half in width, have produced copper ores to the value of **THIRTY MILLIONS STERLING**, and are still producing 500,000*l.* a year in copper, and about 120,000*l.* a year in tin.

For the St. Just and other mines—which I hope to visit and report upon before long—Penzance should be the head-quarters; and Marazion for Prosper United, Tolvadden, West Trevelyan, &c.

FOREIGN MINING AND METALLURGY.

The attention of Belgian firms has been much occupied of late with the deliveries of rails made by Belgian works to foreign railway companies. With reference to one of these deliveries, which has now reached the term of the guarantee, and by consequence the "definitive reception," the totals have been published of the quantities of rails which have been rejected after the test of two years, which they have undergone. Without entering into details on the subject, we may state that the cause of their being refused was not the quality of the iron; but experience would seem to show that rails manufactured entirely of puddled iron are preferable to those the upper part of which is formed of hammered iron. This is a point which it is useful to note for the benefit not only of forgemasters, but also of the engineers of companies charged with the preparation of specifications. Another question raised by refusals of rails in deliveries made abroad is the desirability of introducing into customs' legislation modifications securing the entry into Belgium free of duty of rails rejected by companies. It is not equitable, it is contended, that forgemasters should pay the duty with which the importation of old iron is burthened for rails unfit for service, and to be re-handled at their works. As these rails have to be replaced there is a re-exportation of iron equal to the quantity at first delivered; and therefore—following the habitual principles of customs' legislation, which accord freedom from duties to materials serving for the production of objects of re-exportation—it is urged that it would be both politic and possible to exempt from taxes old rails imported into Belgium. There is scarcely any change to notice in the aspect of the Belgian iron market; little animation prevails in affairs, but late rates are maintained. A contract for 11,000 tons of rails, with their accessories, has been concluded with the Spanish *Credit Mobilier*. Several affairs in rails for exportation have also been talked of, but it has not been possible to arrive at an understanding as to the term of the guarantee. Some important adjudications will shortly take place. On the one hand, the Great Luxembourg Railway Company received up to Wednesday (July 1) tenders for the delivery of 5000 tons of rails with switches; and, on the other, the Council of Administration of the Ainsle and Salzbergen Railway will receive up to Aug. 1 offers for the delivery of about a similar quantity. Special treaties have been concluded by the administration of the Belgian State railways—first, with the Mechanical Nail Forges Company of Fontaine-l'Évêque, for the carriage of iron in bars, rolled and merchants' iron plates, and iron wire, from Liège to Marchienne (at a price of 5*s.* 9*d.* per ton, that rate being fixed in conformity with the bases admitted for other contracts of the same kind in course of execution); secondly, with M. Brancart, of Monscron, for the regular transport of 5 tons, at least, of coal per day from Jemappes, St. Ghislain, Boussu, and Thuin to Monscron (at a uniform and average price of 5*s.* 9*d.* per ton by assimilation with other treaties in course of execution); and, thirdly, with the Sare au Berleur Company, for the carriage of certain descriptions of minerals from Antwerp to An (at a price of 4*s.* per ton). On the other hand, the piling in vigour of a special tariff introduced by a ministerial decree of May 26, 1863, for the carriage of coal, rough pig, scoria, and minerals between the stations of the line from Mons to Manage and those of the Charleroi basin has involved the deter-

mination of the following treaties, which expired on Wednesday, July 1:—1. A treaty of the Châtelineau Blast-Furnaces and Foundries Company, for the carriage of coal and rough pig between Châtelineau and the offices of the line from Mons to Manage, and vice versa.—2. A treaty of M.M. de Dorlodot, of Acoz, for the carriage of coal, coke, and forge scoria, from the basin of the center to Châtelineau.—3. A treaty of the Montigny-sur-Sambre Company for its carriage of rough pig from Couillet to Bois-du-Luc.—4. A treaty of M. Dupont, of Fay, for his carriage of pig, minerals, ralis, &c., from the basin of Charleroi to that of the Centre, and vice versa.—5. A treaty of the Châtelineau Blast-Furnaces and Foundries for the carriage of coal and rough pig from the basin of the Centre to Châtelineau, and vice versa.—6. A treaty of the Fioreffe Company for the carriage of coal from the basin of the Centre. In consequence of the approaching closing of the navigations, considerable deliveries of coal have taken place from Charleroi during the last few days, and will continue until the fall of the waters renders further operations impracticable. It is especially good qualities of coal which have borne the largest share in these deliveries, and certain producers of the basin have been obliged to postpone the execution of a portion of their orders. The fall in prices has been stopped; warehouses are being emptied, and a serious revival of business is anticipated in coal during the approaching autumn, unless the political horizon should be clouded over more than it is at present.

Advices from St. Dizier state that pig for refining is no longer the object of important transactions. The sale of some small, almost insignificant, lots—such as 10 tons or 25 tons—is noted in the neighbourhood at 5*s.* 4*d.* per ton; but for important orders offers are made at 5*s.* per ton, to be extended up to September. The price of 5*s.* per ton has been admitted between contracting parties as the average course of May. Rolled irons have not well established quotations, but prices remain at about the same point as before; iron from wood-produced pig making 9*s.* 9*d.* per ton, with a scale of 4*s.* to 8*s.* between the classes, according to the works; mixed irons have made 8*s.* 10*s.* to 8*s.* 12*s.* per ton, with a scale of 8*s.* per class; and sheets, 9*s.* 16*s.* to 10*s.* for first-class, with a scale of 16*s.* to 17*s.* per ton among following categories. Beaten irons are held at 10*s.* to 10*s.* 12*s.* per ton, and axes at 11*s.* 4*d.* to 11*s.* 8*d.* per ton; water has risen slightly in the small streams, on which the works with hammers are more particularly placed. Machine No. 20 still brings 9*s.* 16*s.* per ton, when made from wood-produced pig; when from mixed pig, it is quoted 4*s.* to 8*s.* per ton lower. The Racine forces have just put into activity again their works for the production of heavy irons; they have been stopped for some months in consequence of repairs required to be made in the turbine. The Donjean rolling works are making arrangements for adding to their hydraulic motor a machine of 25 to 30 horse-power, which will enable the management to increase the fabrication of small irons and sheets. The forces of Styring-Vendel have just concluded a contract for rails with the Northern of France Railway Company. M. Labbé, manager of the Gory forces, has applied for authority to construct two or three blast-furnaces in the commune of Bone St. Martin, near Longwy. A Boisian writer, commenting on the present state of metallurgical affairs in France, recalls the protestations which greeted the conclusion of treaties of commerce, in 1861, between France and Belgium or England. The French ironmasters then declared that metallurgy was ruined for ever, the blast-furnaces were going to be extinguished, and the rolling-works stopped! Nevertheless there were persons even then who affirmed that those fears were exaggerated, and that a duty of 21*s.* per ton of iron was more than sufficient to enable French works to struggle with advantage on the internal market against foreign products. These more far-seeing—or, perhaps, more honest—lookers-on admitted that some small establishments, badly situated, toolled in an old-fashioned manner, and wanting capital, could not resist foreign competition, and would disappear, as they did

Original Correspondence.

ECONOMY IN MOTIVE POWER.

SIR.—To treat upon steam-power in anything like a satisfactory manner, even admitting it to be possible to do so, would involve such a laborious task that few will be disposed to undertake it. It cannot be disputed that steam-power has been of immense service to mankind, but the time has now arrived when even a better motive power than steam is required for the purposes of trade and commerce, as well as to prevent the evils resulting from loss of time and property, as well as the sacrifice of human life.

In consideration of existing circumstances, I beg to state that I am in a position to suggest a new mode of producing motive-power, which could not fail to tend to the public good. No large amount is required to practically test the invention, so that I entertain the hope that by your permitting communications for me to be addressed to your office I shall obtain the necessary co-operation for developing it.

J. M.

TWIN SCREWS.

SIR.—Much controversy has recently engrossed the columns of the scientific press in regard to the supposed originator of the proposition for the application of twin screws to steam-ships. I have not hitherto joined in that controversy, but am disposed now to state, if you will allow me, some facts in reference to the subject.

So long back as the winter of 1848-9, Mr. Joseph Apsey, who was then in business for himself as an engineer and machinist in the neighbourhood of the Blackfriars-road, called upon me and exhibited drawings of a steamship, in which a small screw was shown under each quarter. He also exhibited a peculiarly-formed brass model of the proposed screws, and which certainly proved that he had well considered the matter. He contended that great advantages would arise from the adoption of this mode of marine propulsion, and recommended that each screw should be driven by a separate engine. Like many other clever inventors, Mr. Apsey was without the requisite funds for realising his plans, and he not only solicited my assistance, but that of other engineers, to enable him to fit up and start a small boat on the Thames in accordance with his views. Though fully impressed at the time with the value of Mr. Apsey's proposed system, I was not in a position to advance money for the purpose of realising it, and this probably was the case with others.

So far as I am aware, no attempt has been made to establish a claim to the proposition for any other person at so early a date as that named above. I shall not go so far as to say that Mr. Apsey's plans have been appropriated by others, but I do assert my firm belief that to that gentleman belongs the merit of having first suggested the application of twin screws, with separate engines for driving them. What has become of Mr. Apsey now I know not; but, in justice to him, I feel that I ought not to be silent at this juncture. I am not an advocate of the twin screw system, because I have more faith in a recently patented plan of marine propulsion—that of Mr. Vaile, of which some notice has been taken in your own columns, and which is deservedly, as I think, attracting the attention of marine engineers and shipbuilders. It is solely with a view of "rendering unto Caesar the things that are Caesar's" that I trouble you in the matter of twin screws.

Royal Mint, July 1.

JOSEPH NEWTON.

MAGNESIUM AS A COMMERCIAL PRODUCT.

SIR.—In last week's Journal you speak in terms of high praise of the invention patented by Mr. Sonstadt, for the production of magnesium upon a commercial scale, but there are two very important points in connection with the subject, of which no mention appears to be made; you do not state in what quantity it is likely to be produced, nor do you state its cost. I am prepared for the reply that the cost will depend upon the demand; that as it has only just been obtained upon anything approaching a commercial scale, the question cannot be answered, and similar general statements upon the subject; but there appears to be so many difficulties attending the manufacture of magnesium, that I am at a loss to understand of what commercial use the metal can be, at least produced in the way described in your article. Perhaps Mr. Sonstadt can inform us.

From the statement which Mr. Sonstadt gives, he appears to follow a process very similar to that employed in the production of aluminium, whilst, so far as the practicability of the process goes, it is very questionable whether the publications of St. Claire-Deville would not materially interfere with him, at least to the extent of preventing him from recovering royalties. Deville described an analogous process before Mr. Sonstadt secured his patent, and to prove the validity of Mr. Sonstadt's patent, it must be shown that the use of an iron crucible is an essential part of the invention, and that Deville has not employed iron for the same purpose. The chemical details of the two processes are so nearly identical that I cannot think the patent would stand upon that alone.

With regard to magnesium itself, Mr. Sonstadt tells us that it can be used as a substitute for silver; but, I would ask, would it not be something like employing gold as a substitute for brass, or silver as a substitute for tin? I do not think Mr. Sonstadt can hope to bring magnesium into the market at a lower price than aluminium is at present, which, I believe, is about 4s. per oz., which is only 20 per cent. less than silver; and for some time to come—at least, so long as the magnesium is obtained only from Epsom salts and sea-water—I fear the cost would not be less than 10s. per oz., or just twice the price of silver. We must remember, too, that the tarnish in silver is readily cleaned off by friction, whilst the result of exposing magnesium to the air will be the formation of a film of magnesia upon it, which sticks tenaciously to it, and requires benzine or other similar substance to remove it; the softness of the metal preventing its removal by the means usually adopted with silver.

But this is not the only objection which I conceive there would be to the use of magnesium—it will require to be worked at a high temperature, and upon the slightest excess it will inflame, so that there is reason to fear that a workman in manipulating it might find his raw material suddenly burst into flame, and leave no residue than would a similar quantity of gunpowder. Mr. Sonstadt may be able to explain how these inconveniences may be avoided, and I think that he should have been asked to do so, and also to point out the precise differences between his process and that previously described by Deville, before leading to the expectation of such great results in a commercial point of view.

AMMONIA.

THE NEW METAL—SIDERIUM.

SIR.—Reference is made in the *Mining Journal* of last week to the discovery of a new metal, occurring in infinitesimal proportions, in the residue obtained in the manufacture of metallic magnesium, and we are told that so tedious is the process by which the new substance is procured that the present rate of production of its oxide only reaches a fraction of a grain per week. Now, although there can be no doubt that the discovery of a substance existing in such minute quantities gives evidence of the diligence of a chemist, the practical and commercial world very naturally desire to know of what utility, beyond the pale of technical chemistry, are the researches which led to the discovery of either of the most recent chemicometallurgical novelties—thallium and siderium. From this point of view both substances are much in the same position, and for the present I will assume that both thallium and siderium are, commercially, worthless, and altogether incapable of being isolated upon a large scale, and endeavour to ascertain what is the utility of the discoveries?

This is without doubt a question which has suggested itself to many, not only with reference to thallium and siderium, but with reference also to a vast number of apparently unimportant discoveries of a strictly scientific nature. Now, it is true that although only twelve months since Mr. Crookes had not satisfactorily ascertained whether thallium was even entitled to be denominated a metal at all—indeed, at the time of the opening of the recent International Exhibition he seems to have been inclined to regard it as a metalloid only—Mr. Lamy has been enabled to exhibit it in its metallic form, and Messrs. Bell Brothers, of Newcastle, have publicly exhibited a 10-in. ingot, and it is not impossible that ere another year has passed we may have an opportunity of examining metallic siderium; but even had nothing more been done with thallium than was done by Mr. Crookes, and if nothing more were made known of siderium than has already been discovered by Mr. Sonstadt, the discoveries are undoubtedly of commercial utility.

It does not necessarily follow because a substance is of itself without value that the knowledge of its existence is without value also—in the cases of the substances under consideration precisely the reverse is proved. It may be found with respect to thallium that the removal of it in the treatment of those descriptions of cupriferous ores in which it is contained will add materially to the value of the finished product, whilst there may be cases in which a minute addition of the metal may be of great advantage.

In the case of siderium, the importance of the knowledge of its existence has already been made evident, for Mr. Sonstadt has ascertained that the froer the material from which magnesium is reduced is from siderium the more readily does it run together. Now, the more we know of a substance the more easy is it to deal with, and it is not improbable that had the siderium continued to be mistaken for the iron with which it is associated, serious and most annoying obstacles might have presented themselves on the attempt being made to introduce magnesium upon a commercial scale.

It is to a knowledge of the *precise* constituents of a commercial article that we frequently owe success, and it is owing to this circumstance that I maintain that the value of a discovery cannot always be judged of by the intrinsic worth of that which is discovered, and that comparatively worthless (so far as is yet proved) as are thallium and siderium, Messrs. Crookes and Sonstadt are entitled to great honour for their discoveries, which may prove of great importance to commerce as if those substances had been more readily obtained, and of greater commercial value in themselves.

With regard to the name siderium, by which I have designated Mr. Sonstadt's metal, I think it will be considered not inappropriate, from the similarity of its reactions to those of iron, in Greek, *sideros*, whilst the use of *Sd.* in chemical formulae will not interfere with any existing symbol. It may yet be proved that the new substance is only a metalloid, in which case it will simply be requisite to change the termination *ium* into *on*, and all confusion will be prevented.

E. D. H.

MINING IN IRELAND.

SIR.—In perusing the Journal of the 13th inst., I observe the remarks touching on mines in the locality of Schull: some of them are reported as genuine, particularly Schull Bay, where the writer is interested; but finding there are erroneous statements respecting Long and Coney Island Mines, I beg to correct him in his misstatements thereon. About twenty years ago two strong lodes were discovered on Long Island by a Captain Martin, of Cornwall (who also at the same time opened the Cooseen Mine, now called Schull Bay). At Long Island Captain W. Thomas extended a cross-cut south 3 fms., and 10 fms. from surface, but he did not intersect the lode, and got mystified. A short time since an Indian Liverpool company took the mine, and extended the cross-cut south 4 fms., and cut a lode 7 feet wide consisting of galena, gossan, quartz, and branches of grey and purple porphyre, from which two shipments were made, together with Coney Island, at a trifling expense. This will probably show it is anything but a twisted, thinly laminated slate rock, which your correspondent had the kindness to state. The gentlemen, previous to spending their money in this spot, had the opinion of able and scientific mining authorities, which quite satisfied them, without going to Capt. W. Thomas for his opinion. At present there are three shafts sinking at Coney Island, varying in depth from 20 to 15 fms., with nine men in a shaft; the shafts are producing green and blue carbonite and rich grey sulphate of copper, worth 37 per cent. Another cargo is preparing for shipment.

Long and Coney Island Mines, June 30.

CHARLES THOMAS.

WEST CHIVERTON MINE.

SIR.—In reading last week's Journal I note Mr. J. Y. Watson's remarks on West Chiverton, and in it he refers pointedly to me and my valuation of the mine, and he hoped I did not so for the widow. I may inform him I neither valued the mine for the widow or the party that purchased the mine; consequently, my opinion, or valuation, could have no effect in the purchase, whether high or low. Of course, the animus of the remark to me is quite understood, especially when he says sneeringly the "famous" agent of "Herdfoot" said so and so. It is proverbially known that Mr. Watson bears Herdfoot Mine and its agent in mind, and is always ready to refer to any fault or flaw in that concern to my disadvantage, as he well knows, with all his facilities, he is only second-best man; and to select West Chiverton for an attack is a mistake of his, especially when I refer to my advice and opinion of West Chiverton seven years ago. I hope I shall not be thought egotistical, or boasting beyond measure, to refer to the report, and my opinion of the mine, at that date. If Mr. Watson will ask the widow, Mrs. Cookney, or her solicitor, he will find my report, and in it directions how to work the mine. The result is now verified by the return made and nett amount realised. I was employed by the late Mr. Cookney to inspect the mine. I then found fault with, and condemned the mode of working, and suggested a different course of operation, which was opposed by the then manager. This led to a second inspection, at the request of Mr. Cookney; the result was that I again suggested, in a long report with explanations, how the mine should be worked, and I thought, if carried out in a legitimate manner, it would prove to be a successful mine. My recommendation, to the letter, Mr. Cookney carried out. He displaced the old manager, and appointed the present one. The result of my recommendation speaks for itself. I have no wish to enlarge or comment on my services to Mr. Cookney, rather than otherwise.—*Herdfoot Mine, July 2.*

THOMAS TREVILLION.

NEW WHEAL MARTHA.

SIR.—Returning to town to-day, after a week's absence, I find nearly a score of letters from shareholders and others interested in New Wheal Martha, drawing my attention to the comments of Mr. J. Y. Watson, in last week's Journal. To those acquainted with mining matters, and knowing the difficulty of drawing correct conclusions, even when the data have been most carefully observed, the rambling, jangly manner, slip-shod inferences, and absurd deductions of your correspondent only provoke a contemptuous laugh; but with a large class of readers, whose only information is got from such jottings, it would be needless to deny that those very qualities cause them to be read with no small interest, and like the leading incidents of a fictional novel, the more startling and absurd the statement the greater is the sensation created. As the statements therein made are not only absolutely untrue, but totally devoid of any foundation, I am forced to believe that they have either been formed with a reckless disregard to truth and facts, or else for some other object far from commendable. This I the more regret with a writer of the standing and experience of your correspondent, as he knew well that by a reference to me, or at my office, he might have had every, and any, information with an accuracy which, under any circumstances, he could not obtain from the gossip or tattle round about him. To go on to a mine and spend from 15 to 20 minutes upon the dressing-floors, as Mr. Watson did at New Wheal Martha, taking notes from anyone he happened to see, and then gravely drawing conclusions from these, upon the history, finances, prospects, nature, and extent of the mine, may be an easy way of "doing" all the Cornish mines in a fortnight, but assuredly it is not the way to succeed in establishing the confidence of the public on the comments published. It is to be hoped that the opinions given by him as to other mines have not been as lightly and flimsily formed as those on this one. Mr. Watson's statement is so rambling and disjointed that it is difficult to reply to it *seriatim*. I can only say—1. There was no such sum as 15,000*£* expended by the late Great Wheal Martha Company, for the simple reason that it never possessed any such amount of subscrbed capital. 2. Every shareholder in the Old Wheal Martha Company had the option of retaining the same proportional interest in the new company that he held in the old one; and, with scarcely an exception, the shares of every original shareholder in the new company has been taken to pay the debts of the old one. The mine was sold to the new company for 50,000*£*, in 12% shares, leaving 50,000*£* of working capital to carry on the mine. Instead of there being only 1250*t*. of this remaining, there is more than three times that amount at command at this moment, and this capital, the directors are informed on much better authority than that of your correspondent, is ample sufficient to carry on the development of the mine to the depth contemplated. 4. The returns from the last sale of ore are not only "nearly met the working cost of the mine," as stated by your correspondent, but they exceeded it by almost 100%; and this, notwithstanding that one-third of the cost was for driving and sinking, or, in other words, non-productive labour, while the average price of the ore was 30 per cent. higher than it ever before realised. 5. Your correspondent hints that as the mine is being worked we are taking away the ore "too fast," leaving no reserves. Whether it is right or wrong to leave large quantities of ore standing in a mine at the time when you are making calls on your shareholders I will not debate; it is not what would be practised by a single individual under the same circumstances, but I can only say that I have to day had sent to me a report made lately by one of the most eminent of the South Cornish managers, prepared for a person totally unconnected with the management, wherein he says that fully one-third more—than 100 tons more per month—than we are now raising could easily be taken away. Personal observation, and the reports of half-a-dozen first-class miners during the last two months, enable me to substantiate this; in fact, scarcely any of the rich ore discovered in the 52, and now proved to go down to the 64 and 74, has as yet been removed, nearly the whole of the rich backs between the 52 and 64 remain standing, and must do so until the latter level is driven far enough and the mine sunk. The ore now known to be standing in the short space opened up in the 52 and 64 fm. levels has been valued at the lowest figure at 9000*t*. and this without regard to the enormous masses of poor ore in the other portion of the mine.

In conclusion, I beg to inform your correspondent that never since the formation of this company has the pay been delayed beyond the time it was due, save on the last pay-day, when, owing to the purser being in town on important business, the payment of the men was delayed for a few days, until his return. The question of limited liability and cost-book management is so much mixed up with his comments, that it is difficult to find out whether the effusion is a diatribe against the Wheal Martha Mine or Limited liability. This I leave, with the remark that if the principle of limited liability has no stronger cases against it than the past workings and present success of Wheal Martha, I have little fear that in a few years it will be as generally adopted even in Cornwall as it is now throughout the kingdom, and with equal success.

JAMES WHITR.

12, Cophall-court, Throgmorton-street, July 3.

THE LAW OF JOINT-STOCK COMPANIES.

SIR.—I observed some remarks in last week's Journal, made by a correspondent, relative to a Welsh Gold Mining Company. I have very little experience in the law of joint-stock companies, but I have little doubt, if your correspondent can prove the statements made in his letter, that the directors would be bound to refund the deposit money. Surely "J. S. L." or some interested person, could propose a plan which would tend to the recovery of the money; at all events, it would not be difficult to obtain legal opinion with regard to the proceedings of the directors, which I consider is a thing which the shareholders ought to do without loss of time. I believe Mr. Henry Peet, the Secretary of the Sovereign Gold Mining Company, received a letter some time last month, requesting him to send "a statement of the financial position of the company," in accordance with the company's Articles of Association, to which he made the following reply—"According to the Articles of Association, the first general meeting of shareholders is to be held within a year from the formation of the company, and accounts submitted for audit. Afterwards quarterly statements are to be sent out, and half-yearly meetings held." Such a statement may be in the Articles of Association, although I am unable to find it, but I am quite certain that a clause will be found in the prospectus to the following effect:—"The directors guarantee that a statement of the financial position of the company, with full particulars of the proceedings and results of the workings at the mines, shall be made up every three months, and sent to each shareholder. The meetings of the shareholders will also be held half-yearly."

Knowing this, I was astonished to see a letter in last week's Journal from Mr. Henry Peet, stating that he would be glad to give shareholders any information they might

require. I believe a meeting fails to be held on the 29th current, at which the directors will have an opportunity of giving an explanation, which will, perhaps, help to clear up the doubts which exist with regard to this company.

E. C. F.

INTERESTING FACTS FOR SHAREHOLDERS.

SIR.—Most of your readers must have noticed an advertisement headed "Reform your Tailor's Bills." Now, I have no doubt that reform is wanted in tailors' bills as well as in most other things; but the case I am about to bring before the reader's notice is one of such an extraordinary character, that I am sure everyone must agree with me in the opinion that reform is wanted in the management of mines, particularly as regards the selection of men to be placed on the committee of management.

When I state the particulars many of my readers will, I am confident, imagine I am only making fun of the thing, and that I am drawing largely on my imagination to make this letter as amusing as possible; but no, what I am about to state are facts—stabs—facts. I know many persons will be astounded that such a state of things could have lasted so long, and in offices the most respectable in London; but they have existed, they do exist, and the sooner they are altered the better for the offices and the supporters of them.

The mine I am about to allude to is in an office—than which no office in London is better managed—and the committee of management receive 75*£*. per annum for their few hours attendance, which is really a source of amusement during the year, and get, as a matter of course, important information respecting the mine long before it can be received by the general body of shareholders—no trifling advantage in a speculative mine, and in comparison to which the 75*£*. a year would be an insignificant item.

I do not mean to insinuate for one moment that the gentlemen who at present form the committee of management would take the least unfair advantage from occupying such a position, and I now write more to oppose the system as it is at present carried out, than the gentlemen in whose persons it is exemplified. We all know that committees may change, and that it is not impossible that men may be appointed who would take advantage of their position.

The mine in question consists of 6000 shares. How many of this number do my readers suppose the three gentlemen of the committee of management held at the last general meeting, and probably now hold? Perhaps it may be imagined they held 300 or 400 shares each, from the fact of their being the managing directors of the mine; but no, probably 100 or 200 each. No. Surely 50 or 100 shares each. Again no. I fancy I hear some exclaim, "Then what number, in the name of goodness, do they hold to be thus placed above all their fellow-shareholders?" Listen, and I will tell you; they hold between them, the three mind, exactly—but you shall have them separately. When there are some shareholders in the mine holding nearly 300 shares, others 200, &c., who have nothing to do with the management, with what indignation will they read the following? The first held 25 shares; the second held 20 shares; and the third—do not laugh—held *exactly* nine shares. Nine shares; "think of that, Master Brook;" a gentleman receives 25*£*. a year from the mine in which he has an interest amounting to 15*£*. for the present prior to it is just what his nine shares are worth.

I say every shareholder, who is not a member of the committee, must feel indignant at such a fence; I know I do, and I sincerely trust now I have brought this subject to light, that others will follow it up, and weed out such abominations both root and branch. If this member of the committee thinks so little of the mine as to hold such a small interest in it, why does he hold *even* his nine shares? It surely cannot be for the sake of the 25*£*. a year; this I cannot believe—it must then be for the honour of the thing, but what honour can a director expect to receive from his fellow-shareholders, when they know that for his 15*£*. worth of shares he is drawing 25*£*. a year from the concern. Again, I ask, what interest a rich man can be expected to take in a concern in which he has a stake of only 15*£*? Away with such folly, and let us do things in a business-like manner. Let every mining adventurer from this time demand to know who are the gentlemen who form the committee of management in every mine with whom he is connected; let him enquire how much they receive for their few hours' amusement, and then let him demand to see the list of shareholders, either when he makes the application, or the list that was produced at the previous meeting. I fear there will be found many other committee-men holding less than 20*£*. worth of shares, and who are receiving *double* the amount from each mine for their patronage.

Some men, I am told, lay themselves out for this sort of thing, and are always on the look out to worm themselves into such nice pickings—rich men, too, who ought to be above the suspicion of such a proceeding. If none but poor devils did this, I could forgive them; as, like the *Apothecary* in "Romeo and Juliet," "their poverty, not their will, consents"; but for a rich man to be receiving the interest of nearly 1000*£*. for an outlay of a dozen pounds, is a thing which would scarcely be tolerated in any concern, but that of a mining company? Everybody knows that the very attempt would be scouted. In a mine on the Cost-book System, all the shareholders are partners; and yet the partner who has as many pounds in the concern as another has shillings or even pence, to this will allow this latter one to have advantages which he himself is not allowed to have! The more I think of it, the more disgusted am I with the whole concern. A man to hold an interest in a mine amounting to 15*£*. to receive 25*£*. a year for the privilege of holding it, and to receive immediate information from the mine, by which he may increase his interest at any moment, and probably pocket thousands of pounds! It is

ing to appear to be what he is not. What Capt. W. C. Paul intended to convey as to the percentage of the cargo of ore at Cappagh Mine it is impossible for me to judge. I simply quoted what he said—viz., "That they have already raised between 70 and 80 tons of iron ore, yielding from 40 to 60 per cent. of pure copper." If he meant to convey to the public that prills would yield from 40 to 60 per cent. of pure copper, why did he not say so? The public judge the acts of people by what they say and do; but they cannot judge what any man intends to convey or does not say. The public can judge, however, what a man's judgment is worth when he says a parcel of ore will produce from 40 to 60 per cent. of pure copper, when the actual produce is about 12 per cent. I have never attempted to pervert facts; but have done more for the public interest and the encouragement of legitimate mining in this country than Capt. W. C. Paul is likely to do, although he is a director. About the dialling of Crookhaven Mines, Capt. Paul says—"From what false plans of mapping or dialling have been taken his ideas, which are certainly incorrect, I cannot say. I have had too many years' practical experience in dialling and mapping, on the most approved methods, to be taught by your correspondent in that art in the old style." I am ready to admit and prove that the dialling plan I saw was incorrect, and also to state that it was made by Capt. Paul himself. With regard to the "old style" of dialling, I know men of the "old style" who would dial more correctly with a three-legged stool than the plan I saw. Again, Capt. Paul says—"On enquiry I found there was no plan or section of the workings kept. This resulted in my dialling the mine, and I ascertained beyond a doubt that the purple ore lode had not been cut below the 7 fm. level." I ask Capt. Paul, as a "lover of truth," was the above the whole and sole reason for his dialling the mine? I ask him also, and I defy him to deny it, was he not at Schull, having returned there after inspecting the mine, in fact, on his way back to London, taking Roaring Water on his way, when it was pointed out to him that he had not seen the most important part of the mine, although he had finished his inspection, and, if I am correctly informed, had made up his mind to condemn the mine, when it was decided by his co-director that, after visiting Roaring Water, he should return again to Crookhaven, and dial the 20 and 40 cross-cuts, and it was only then he discovered, what was well known years ago, that the purple lode had not been cut in either of the cross-cuts. I ask him again, was it what was explained and pointed out to him in Schull his reason for returning again to the mine, or his not finding a plan and section of the mine, or whether he would have ever dreamed that there was such a thing at all in the mine as the purple ore took name? It has been pointed out to him, although he, a director, was on his way back to London, after his inspection of the mine? I now leave Capt. W. C. Paul to repose on his well-earned laurels.

Meetings of Public Companies.

WHEAL CROFTY MINING COMPANY.

A general meeting of shareholders was held at the London offices of the company, Gresham-house, on Wednesday,

Mr. F. WILSON in the chair.

A code of rules, in accordance with the cost-book and the Stannary laws, was adopted. A financial statement showed that £1000 had been paid as purchase-money for the property, including all the plant, consisting of two steam-engines, pitwork to the 45 fm. level, whims, chains, railroads, ore-dressing apparatus, &c. Since the purchase of the property, the engines have been put into a thorough state of repair, and all the machinery was reported in excellent condition.

A committee, consisting of the following gentlemen, was appointed:—Messrs. F. Wilson, J. E. Square, Richard Hawke, W. C. Vivian, and W. L. Webb.

The following officers were appointed:—Mr. James Lanyon, of Camborne, purser, at £1. 8s. per month; Capt. Skewes, manager, at 101. 10s. per month; Capt. Vincent, underground agent, at 71. 7s. per month.—A call of 7s. per share was made.

The following information was afforded to the meeting:—This mine formed one of the most important, and richest part of the formerly very productive and profitable copper mine, East Wheal Crofty; it is bounded on the east by South Crofty, on the west by Dolcoath, and the old south Roskar Mine, on the north by North Crofty, and on the south by Cook's Kitchen, being thus surrounded by mines all of which are, or have been, rich in copper and tin. It is traversed by a great number of lodes, some being cauters, and forming numerous junctions and intersections, many of which have been already found to produce large quantities of copper at shallow levels, and there are good bunches of copper, which can be worked on at once. One of the most extraordinary facts connected with this mine is that none of the levels have been driven into the western part of it, through which passes the great Dolcoath and Cook's Kitchen cross-course, against which in both the mines last named large masses of copper ore were found, which gave immense profits. In the mines to the north also, North Roskar and Wheal Seton, fine courses of copper ore existed on each side of the same cross-course; yet in the intermediate and parallel ground in this mine the numerous lodes remain at present unexplored to within a long distance of the cross-course. The levels will at once be pushed on with all possible speed to this very promising part of the sett on the Copper, Tankard and other lodes, and it is very confidently predicted by some of the most cautious and experienced mining authorities of the district that valuable discoveries will thus be made. The lode also, known as North Tincroft lode, which has produced very large quantities of copper ore in Tincroft and Cook's Kitchen, underlays from the latter mine into this at about the 120 fm. level, and a cross-cut will be driven south to intersect it with all practicable expedition, as it is likely to prove one of the most valuable features of this mine; this lode also has never yet been seen near the great cross-course. The objects which are being carried out in this mine are such as can scarcely fail to lead to discoveries from which large profits will follow, the features being precisely the same in the undeveloped portions of the ground as those in the rich mines by which it is completely surrounded; and the expenditure would be light, seeing that the cost of draining must always be so greatly relieved by the numerous deep and extensive mines in the midst of which it is situated.

ROSEWARNE CONSOLS MINING COMPANY.

An ordinary general meeting of proprietors was held at the London Tavern, on Tuesday.—Mr. E. J. WILSON in the chair.

Mr. T. HOLLOW (in the absence of Mr. J. Hollow, the purser) read the notice convening the meeting, and the minutes of the last were read and confirmed.

A statement of accounts was submitted, which showed—

Balance last audit	£ 241 16 10
Mine cost, Jan. to April	1387 6 8
Dues, &c.	89 19 6
Merchants' bills	652 7 7
New engine, boiler, engine-house, &c.	960 16 10 = £3332 7 5
Last call (less discount)	£ 969 6 6
Copper ore sold	1064 10 7 = 2038 17 1
Leaving debit balance	£ 1298 10 4

The report of the agents was read, which stated that since the last meeting they had sunk the engine-shaft 7 fms., fixed lift, footway, &c.; sunk Ellen's shaft 5 fms. 2 ft., and put in bearers and cisterns; driven the 40 fm. level west from engine-shaft 10 fms.; driven the 60 west of Ellen's shaft 6 fms. 2 ft., and the same level east 13 fms.; driven the 80 fm. level east of Ellen's 8 fms., and the 40 east 2 fms.; also sunk a winze in the bottom of this level 9 fms.; driven the cross-cut south at the 40, 18 fms.; and driven the 30, east of No. 1 cross-course, 20 fms., which is now suspended, being near the boundary. Total ground opened for the four months, 108 fms. The present operations are as follows:—The engine-shaft is sinking below the 40, by eight men, at 10f. per fathom; lode 18 in. wide, producing stones of ore, and showing indications of an improvement soon. The 40 fm. level is driving west from the engine-shaft, by two men, at 40s. per fathom; lode 18 in. wide, and much of the same character as it is in the shaft. They expect an improvement here shortly, as the end is approaching the junction with the caunter; and at Wheal Unity they have a promising lode in the 40, driving east towards the western boundary. Ellen's shaft is sinking below the 60, by six men, at 9f. per fathom. The lode here has a very promising appearance; it is 18 in. wide, producing rich stones of ore. In the cross-cut driving south in the 40, they have intersected two ore branches underlying north, and one of them will form a junction with the lode in Ellen's shaft at the 70, which point they hope to reach in about six weeks, and where they expect a good discovery. The 60 fm. level is driving west from Ellen's, by four men, at 40s. per fathom; lode 18 in. wide, at present unproductive—the first 6 fms. was good, and the back is now working on tributaries, at 4s. 11*l*.; the latter part has been poor. The same level is driving east, by two men, at 40s. per fathom; lode 18 in. wide, and will pay for driving. The 40 fm. level is driving east of No. 1 cross-course; lode in this end will also pay for driving. There are four men clearing the adit on Clowance counter; the object in doing this is to find a cross-course, in which Wilson's lode has been reported to have been cut, and to repair it for the benefit of the mine. There are 26 men working on tributaries, at an average of 7s. 10d. in 1*l*. There are employed upon the mine and underground 110 persons. Should the weather continue fine, the new engine-house will be completed in a few days, and the engineers are preparing to get the engine in. On the whole, the prospects are encouraging, looking at the junction with the branches referred to at the 70 in Ellen's shaft, and the ore ground they had in the 30, east of No. 1 cross-course, which is dipping west, and must be met with in Ellen's shaft at a deeper level, and they consider they will be looking for opening out a promising mine. They had a long piece of ground standing on the caunter, which they would begin to work on as soon as that part is drained by the new engine. They had also great hopes for Wilson's lode, in the south part of the sett, which is now ground, and to prove and lay open which they would actively proceed as soon as possible.

The CHAIRMAN said he thought his fellow-proprietors would agree with him in considering that the prospects of the property continued to be of a most satisfactory character. He need hardly say that during the past four months there had been a large amount of extra cost, for that would be seen by the accounts just submitted, in which nearly £1000. had been charged for a new engine, boiler, and engine-house. Deducting this exceptional cost, it would be found that the monthly expenditure had been nearly met by the returns; but when this new engine was at work they would be able not only to develop the mine with greater vigour, and, consequently, increase the returns, but the cost of development would be economised. It would enable them to sink the flat-road shaft, and develop the caunter lode, from which ore could at once be broken. In fact, they would be sinking three shafts, and developing two distinct lodes. Their great drawback had hitherto been the smallness of the old engine, but that difficulty had been overcome; that engine could now be sold, and the amount realised added to the company's assets.

Mr. T. HOLLOW, in reply to a question, stated that the engine would be at work in about six weeks from the present time. He thought it might be as well also to state that the completion of the engine-house had been unavoidably delayed by heavy rains that had prevailed during the past four months.

The CHAIRMAN said he had visited the mine since the last meeting, and went underground. He was very well satisfied with all that he saw, and more particularly with the very easy nature of the ground, which enabled them to drive the different levels cheaply and quickly. Everyone in the district of whom he enquired spoke most encouragingly of the property, the general opinion being that as soon as the engine had been got to work remunerative returns would be made.

Mr. Orr said the last sale of ore, which was the best that had taken place for some time past, could not fail to be regarded as an encouraging feature.

Mr. ELASY enquired if the whole of the bills had been charged up?—Mr. T. HOLLOW replied that every known bill to the end of April had been charged up, including the total cost of the new engine, boiler, and engine-house.

The CHAIRMAN said he had gone carefully through the accounts, and had found them correct; and he was of opinion that it would be the better course for the shareholders to make a call upon the present occasion sufficient to pay off the whole of the debt balance, so that in future there would be nothing but the ordinary costs of the mine.

Mr. Orr suggested that the agents should be instructed to state in their reports, which were sent to the Journal, the quantity of ground sunk and driven during each month. Such information, he was sure, would be received with satisfaction by the shareholders.

Mr. T. HOLLOW said he would see that suggestion carried out.

The report and accounts were received and adopted.

Mr. T. HOLLOW, in reply to a question, stated that the arrears of calls amounted to only 10*l*. or 12*l*.

The CHAIRMAN said it was exceedingly satisfactory that the last call had been paid up so well; but, at the same time, he would suggest that steps should be taken to recover the arrears. It was true the amount was insignificant; but he objected upon principle to any arrears being allowed to accumulate.

A resolution was unanimously passed to the effect that proceedings be taken against all shareholders in arrears of call.

Mr. T. HOLLOW, in reply to a question, stated that Wheal Unity was driving east towards Rosewarne Consols boundary two levels, the 30 and 40, in which there was a very promising lode.

The CHAIRMAN said the present was a most critical period in the history of their company, because great expenses had been incurred in the purchase and erection of a new engine and engine-house, none of the benefit of which had yet been felt.

Mr. Orr hoped every diligence would be used to get the shaft down as soon as the engine had been erected.—The CHAIRMAN said, so far as the committee were concerned, they had urged the necessity of expedition.

Mr. Orr thought that was very natural, seeing the very large interest which each member of the committee had.

Mr. ELASY said the general opinion was that the canter lode would produce important results.

The CHAIRMAN confessed that he confidently looked forward to a great improvement in the mine. Crewe and Wheal Abraham, which were in the immediate locality, made rich in depth; and Capt. Richards, of Rosewarne United, was of opinion that the same would be found at Rosewarne Consols. From the underlie of the sylvan-course it would be reached at about the 70 fm. level—that is, if there were no more veins in the ground than had been calculated upon. They had had tin at the shallow levels, and there was no reason why it should not be met with deeper.

Mr. T. HOLLOW, in reply to a question from a shareholder, stated that the Great Tallack Mines, which were in the vicinity of Rosewarne Consols, had a shallow bunch of ore similar to that recently met with in the latter property. There was then a poor neck of ground, but as soon as that was passed through a rich deposit of ore was found, which gave very large profits. Rosewarne Consols was in the same run of ground, and in every respect possessed the same characteristics; there was, therefore, every reason to believe that the same satisfactory results would be realised in Rosewarne Consols as had been the case in the Reilston Mines. It was an encouraging feature to find that the ground at the engine-shaft had recently undergone a favourable change, and he had no doubt that in a few fathoms further sinking there would be a good course of ore in the shaft. Upon the whole, he considered the general prospects of the mine were of the most encouraging character.

A call of 6s. 6d. per share was made. A vote of thanks to the Chairman terminated the proceedings.

EAST INDIA COAL COMPANY (LIMITED).

The seventh ordinary general meeting of shareholders was held at the company's offices, Sergeant's Inn, Fleet-street, on Monday,

Mr. HENRY HAYMAN in the chair.

The ASSISTANT SECRETARY read the notice convening the meeting.

In a circular submitted to the proprietors it was stated that since the last ordinary general meeting every exertion had been used by the directors to place the accounts of the company in order, so that they might be enabled to issue the usual balance-sheet and report to the shareholders, and the directors were sorry to be again compelled to state that they have not yet received sufficient information from India to enable them to do so. In August last they dispatched their secretary to Calcutta with this object. Mr. Simpson arrived in Calcutta on Sept. 10, and would no doubt have been able to close the old accounts, and forwarded the accounts for the past year home, but that, almost immediately after his arrival, their Indian colleagues deemed it of more importance that he should act as secretary to the company in India, with the object of keeping the current work in order, under the directions of the local directors. The directors have every hope that his exertions will enable them in a short time to issue a statement of accounts to the shareholders. The Dhuasal law suit, that has been so long pending, has been decided in favour of this company. The raisings of coal have considerably increased; the railway has been opened to the company's Topical Colliery, and they are assured from Calcutta that it only requires additional working capital to make the company pay good dividends. The shares of the company have been largely purchased in Calcutta, the present quotation being about 80 rupees.

The CHAIRMAN said it was with satisfaction that he informed the proprietors that several gentlemen connected with Calcutta, where the company's operations were better known than in this country, had recently joined the undertaking. Although he was not going to move any formal proposition, inasmuch as the facts submitted were in the form of a circular than that of a report, yet he should be glad to furnish any information desired.

Messrs. F. E. Cutler, D. Downing, S. J. Wilde, and His Serene Highness Meer Jafur Alie, the retiring directors, were re-elected; and Messrs. Peter Brown and W. H. Dawson, the retiring auditors, were re-appointed.

The meeting having been made special, resolutions were unanimously passed reducing the qualification for directors from 100 to 25 shares, and that 10 shareholders, holding in person or in proxy not less than 500 shares, should henceforth form the quorum of a general meeting.—A vote of thanks to the Chairman terminated the proceedings.

TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

The Mining Share Market has been more than ordinarily dull this week, and but for the transactions consequent on the fortnightly account, which took place on Tuesday, very little, comparatively, would have to be noticed. The account passed off as usual, but there was a scarcity in some stocks, among which were East Caradon and Creborth. There is a manifest improvement in the metal market generally, which will, no doubt, have a tendency to increase the demand for shares, for which there is a fair enquiry, that may ultimately lead to much business.

WHEAL SETON has fluctuated, and left off lower.—WHEAL BULLER has been enquired for.—BASSET and EAST CARADON have been dealt in at lower rates.—CLIFFORDS are in good demand, and are freely bought at advanced prices.—STRAIT PARKS are firm at present prices, and strong buyers at minimum quotations.—TINCROFTS have been in fair request at improved rates.—COOK'S KITCHEN and NORTH GRAMBLERS have been sought for, and several transactions effected.—NORTH BULLER and EAST CAERNARVON at the lower market figures.—WEST CHIVERTONS are in good demand at improved rates, and, from the generally improved prospects of the mine, are likely to advance considerably.—WEST TOLGUS have receded, being more freely offered at lower rates.—UNITYS have slightly advanced, there being a better demand.—EAST GREENVILLE and WHEAL GREENVILLE have been dealt in at present prices.—NORTH ROSKAR and ROSKAR-NORTH have been more than ordinarily quiet this week, and but few bargains effected.—NORTH CROFTY, NORTH TRESCREBBY, and NORTH DOWNS have shared in the transactions of the week, the latter being slightly firmer.—WHEAL KITTY (St. Agnes) are in greater request, and fully maintain their late rise.—EAST ROSEWARNE have been remarkably quiet, arising, probably, from the temporary falling off in the shaft.—HANBUTTS have receded, and are more freely offered at lower rates.—PROVIDENCE and MARGARET have been enquired for, but the latter have since declined.—KITTY (Leant), WHEAL GRYLLS, and STENNETH CARNMELL, continue firm at present quotations.—BASSETT and GRIFFLES have been offered at lower rates.—WENDRON CONSOLS are without any change as to price, and but little done.—ROSEWARNE UNITED and St. IVES CONSOLS have been in request at quoted prices.—St. JUST UNITED have changed hands at minimum rates.—EAST CARADON has been extensively dealt in, both for cash and the account, but many fluctuations have followed, and they are freely offered at lower rates for time bargains. The ends have fallen off.—MARKE VALLEY and LUDCOTT have been dealt at advanced rates, but the latter have since receded.—GONANNS have changed hands at nominal prices.—MARY ANN and TRELAUNY are more in demand, and are more at higher figures.—DRAKE WALLS are heavy at lower quotations.—WHEAL EDWARDS are firm at present prices, but there has been but little done.—NEW WHEAL MARTHAS have receded, large numbers being offered at lower figures, although the prospects of the mine continue extremely good.—CREBORS, after an advance, have receded in price, although the share are scarce for cash.—EAST CARADON report for this week states that the 50 east, on the caunter, is worth 15*l*. per fathom; 60 east, 10*l*.; 70 east is poor; 70 west is worth 30*l*. per fathom. New Lode: 60 east, saving work; 70 east, 6*l*; and 70 west, 6*l*. per fathom. The lode in Seccombe's shaft is cut into 15*l*. west and 10*l*. east, the 44 cast is valued at 16*l*.; and the 34 cast, 20*l*. per fathom; the lode in the shaft below the 90, 20*l*. per fathom, and the ground improving.—GREAT WHEAL BURY is reported to have improved in several important points; the 130, east of engine-shaft, is worth 40*l*. per fathom; the 130, west of Offord's shaft, 25*l*; and east, 25*l*. per fathom for tin. They have intersected the main lode by the 110 cross-cut, which is valued at 15*l*. per fathom. There is a winze below the 110 west, 25*l*. per fathom, and another under the 100, valued at 35*l*. per fathom for copper. At Black Dog shaft, the lode in the 50, which was recently cut, continues to look extraordinarily promising, and is fall 15*l*. wide, producing rich stones of copper ore. The opening of this portion of the setting counter; the object in doing this is to find a cross-course, in which Wilson's lode has been reported to have been cut, and to repair it for the benefit of the mine. There are 26 men working on tributaries, at an average of 7s. 10d. in 1*l*. There are employed upon the mine and underground 110 persons. Should the weather continue fine, the new engine-house will be completed in a few days, and the engineers are preparing to get the engine in. On the whole, the prospects are encouraging, looking at the junction with the branches referred to at the 70 in Ellen's shaft, and the ore ground they had in the 30, east of No. 1 cross-course, which is dipping west, and must be met with in Ellen's shaft at a deeper level, and they consider they will be looking for opening out a promising mine. They had a long piece of ground standing on the caunter, which they would begin to work on as soon as that part is drained by the new engine. They had also great hopes for Wilson's lode, in the south part of the sett, which is now ground, and to prove and lay open which they would actively proceed as soon as possible.</p

on which San Enrique is being driven. The Mexican carpenters have been busy making various articles for the mine, fitting up the porter's room at the entrance of the mine, as well as the office and store-house. We have 5 montos of ore at the head-ends of San Pascual already ground, but not yet assayed, and about 2 montos more on hand at the mine.

PACHUCA.—Capt. Pauli, May 21: San Juan shaft is down 26 varas below San Jorge level, and by this week's sinking we shall have 2 varas for a fork. I shall then put the men to open plat and drive south to intersect the lode, which I trust we shall find productive, especially as it had such a promising appearance 20 varas above. We should have been down for the level ore this, but we had to put in several pieces of timber between others. The lode in San Jorge level east is very much improved since my last; it is composed of beautiful quartz, with a great deal of green towards the bottom. Several branches have dropped in from the south, running parallel with the lode in the end. I would propose to sink a winze 100 varas east of shaft, had it not been for the water. After the lode is cut in the level below I expect San Jorge level, east and west, will be drained. The ground in San Juan end is still of a dark gossan, with branches of hard quartz and labones. We are now 30 varas east from crosscut, and getting near the centre of the hill, where I hope we shall have a change for the better. We have not yet cut the Visacina lode at San Luis, but have met with branches underlying south. The ground is still hard, but not so much so as it was here.

BEARIZ TIN.—Capt. Bray reports, for May and June, that he had got the 24 heads of stamps fixed, and in good working order. The patent round boulders had reached Vigo on June 16, and were being conveyed up to the mines. The summer months so far had been unprecedently dry, but Capt. Bray reports that he was "making all possible preparations by opening up the numerous resources of kaolin, in anticipation of the rains." He was busy with the formation of another leat, to increase the supply of water, and expected by its means to derive the advantage of an almost naturally formed reservoir of nearly two acres in extent. He finds that he can pass through the 24 heads of stamps fully as much kaolin as he had estimated—that is to say, 2800 tons per calendar month. His former reports as to the yield of tin from the kaolin, he considers, would also be fulfilled—say on the average 7 lbs. of tin ore to the ton of kaolin. Up to June 20, owing to a scarcity of water, nothing like a fair quantity of kaolin had been passed through the stamps, and therefore, the production of tin had been in a similar degree limited, but whenever there should be a temporary or more permanent increased supply of water, a sufficient quantity of kaolin had been got ready, and all other needful preparation made to work the stamps up to their full power.

THE HINDOSTAN (SINGHBOOM) COPPER COMPANY.—The directors have just concluded arrangements with Mr. Emerson, an eminent metallurgical chemist, to proceed to the company's property, with especial reference to the question of the gold, which has been proved by assay to exist in the copper ore and quartz.

UNITED MEXICAN.—Guanaxuato, May 15: Mine of Jesus Maria y Jose: The neut of San Cristobal is now in ore 1½ varas broad. The ley is poor, but the vein has not yet been tried towards either the upper or lower wall, in one or both of which it is probable that ore exists. A small frente between San Joaquin and San Domingo is yielding a good deal of ore. The frentes de San Andres, towards the upper wall, is unproven: it is in good ore, 2 varas wide. The frentes de San Nicholas continues in ore, and from Santo Toribio to the south a fair quantity of superior ore is obtained. The two frentes de Santiago, going north, are giving fair ore; the frentes to the south is not so good as formerly. Large quantities of ore, previously left in La Trinidad, San Fernando, Villaseca, and Burgos, are now being thrown down. Generally the upper portion of the mine worked by the regular miners, produces a less proportion of superior ore than it did last year, but I have explained why it is not thought advisable at present to push forward these works. In the lower part, where the bucos work, the improvement in yield, and at some points as to quality also, continues very decided. In the last four weeks the extraction has been 6643 cargas by the regular miners, and 3510 cargas by bucos; the latter have been sold for \$14,462 (half for the mine), and 1910 cargas of the former for \$5059. The profit on the month of April is \$2469 7c., much under the usual amount, but the value of the gold, about \$6000, is not included, and but one torta from Dolores was received during the month, the average being two, and the tortas from this hacienda leave considerable profits, as all the first-class ores are sent there for reduction.—P.S. I have just been informed that some good ore has been cut in the frente de San Cristobal.

ST. JOHN DEL REY.—The directors have received, by telegram, from Lisbon, the following—Produce, 22 days of May, 22,163 cts.; yield, 11 days of May, 7,325 cts. per ton. Remittance, \$1,815 cts.

ALAMILLOS.—F. Pearce, June 20: San Luis shaft, sinking below the 2d level, is going down in moderately easy ground, east of this shaft, and also below the 2d level we have cleared an old winze to the 3d level; this level is open east a great length beyond our boundary, and west to within a few varas of San Luis shaft, the lode in the end is poor. There are old workings still below this level (the 3d). In San Juan shaft, sinking below the 2d level, the ground is rather hard, and the men are making but little progress. We are clearing from an old shaft between those above named with a view to effect a communication with them, and improve the ventilation. Having cut down a second shaft in Venturera pertinence to the water level, the men are now removed to San Francisco set to cut down and make a good whim-shaft. The masons will commence building up the new engine-shaft in Venturera pertinence in a few days; this being down to the water the underground work cannot be much further advanced until the engine is put up; the house will be marked out this evening. At present the masons are concentrated on the buildings for the engine in San Adriano set, and which I am proud to inform you are being pushed on very rapidly indeed—in fact, the loading will be completed in about a fortnight from this date. We are daily expecting to receive parts of the machinery. Our predecessors, in order to comply with the conditions prescribed by the mining law, enjoined the keeping a given number of men at work in each grant, put them to dig out ore wherever it could be found, in some cases giving them all the lead for their pains, and in others prices varying from 7½ to 5¾ reals per varas. I found that this plan of working left no benefit to the company, and was attended with serious inconvenience; in many cases ground was removed which ought not to have been disturbed. This mode of working is abandoned, and the men put to prepare shafts and do other useful work. The mine being worked away to the level of the water from one end of the sett to the other, it is evident to me that there cannot be much returns made until the engines are put to work, and new ground opened out. Capts. Williams and Morcom have entered on their duties, and are very much pleased with the general appearance of this interesting mine.

LINARES.—June 20: West of Engine-shaft—South Lode: In the 95, driving west of Delgada's winze, there has been a large vug met with, which has greatly facilitated the driving. The lode is worth 2½ tons of ore per fathom. In the cross-cut driving south, in the 85, there is no change to notice. The lode in the 61, driving east of Isidora's winze, is large and kindly, spotted throughout with lead. The lode in the 61, driving west of Roble's winze, is worth 1½ ton of ore per fathom; it has somewhat improved, and is of a very kindly appearance. In the 51, driving west of Crosby's shaft, the lode is worth 2 tons of ore per fathom, and the end is opening a very valuable piece of ground.—East of Engine-shaft: The lode in the 95, driving east of Vida's winze, is large and strong, containing good stones of lead. In the 85, driving east of cross-cut, the lode is worth 3 tons of ore per fathom, very compact and firm, and the ground hard for driving. The lode in the 85, driving east of Patricio's winze, is worth 1 ton of ore per fathom, and is still very open and promising. In the 85, driving east of Patricio's winze, on the north lode, the lode is large, containing spots of lead. The lode in the 85, driving east of Jaime's winze, is worth 1 ton of ore per fathom; this is of a highly promising appearance, consisting of carbonate of lime and lead ore. The cross-cut driving north, in the 85, we hope to hole during the present month. In the 75, driving east of Gabriel's winze, the lode is large, but does not contain lead enough to value.—North Lode: In the 65, driving east of Taylor's shaft (now east of Ortega's winze), the lode is worth 1 ton of ore per fathom, and is still very open and promising. In the 65, driving east of Field's shaft, the lode is large, containing spots of lead. The lode in the 75, has intersected the north side of the lode; the part opened in the 75, is driving south, in the 75, to the 65, the men are still making satisfactory progress. Crosby's shaft is being cut down as fast as the nature of the work will permit. No. 129 winze, sinking below the 95, is going down on a very fine lode, worth 2 tons of ore per fathom.

FORTUNA.—June 20: Canada Incosa—West of Taylor's Engine-shaft: In the 100, driving east of Clavell's sump-winze, lode small and unproductive. In the 100, driving west of Addis's shaft, the ground is hard for driving, consequently very little progress is being made. The lode in the 100, driving west of Clavell's sump-winze, is worth 2 tons of lead per fathom, very open, and letting down much water; it is of a very kindly appearance. In the 90, driving west of Zamora's winze, the part of the cross-course now being driven through consists chiefly of decomposed granite. The lode in the 80, driving west of Santana's winze, still continues to increase in size. In the 70, driving west of Guillermo's winze, the lode is worth 1 ton of ore per fathom; this has undergone an unfavourable change lately. The lode in the 55, west of Salvador's winze, is unproductive, and the ground hard.—East of Taylor's Engine-shaft: In the 45, driving east of Munoz's winze, the above remarks are applicable. Both levels are passing through a piece of disturbed ground. The lode in the 30, driving east of Vida's winze, is worth 3½ ton of ore per fathom; it is split into branches, and consequently declined in value.—Shafts and Winzes: At Lowndes' shaft, sinking below the 20, the lode is improving, and is of a very kindly appearance; it is now worth 3 tons of ore per fathom. Lazar's winze will shortly be holed to the 55. In Cañito's winze, sinking below the 45, the lode is still very small. The lode in Garcia's winze, sinking below the 20, is worth 2 tons of ore per fathom; this is going down in a rich lode, and in being in advance of the 30 speaks well for this ground. Gonzalez's winze, sinking below the 90, is resumed, the 100 west having completely drained it.—Los Salidos Mine: In the 75, driving west of Joaquin's winze, the caving rock is very hard for driving. In the 65, driving west of Alcide's winze, the lode is worth 1½ ton of ore per fathom. Baldy's winze is holed to the 55, and the lode is worth 1 ton of ore per fathom. In Parra's winze, sinking below the 45, the lode is small, worth ¾ ton of ore per fathom, and the ground rather hard for sinking. In Domingo's winze, sinking below the 65, the water has increased to such an extent as to render sinking extremely difficult. In Vicente's winze, sinking below the 55, the lode is worth 2 tons of ore per fathom, and of a highly productive nature. The men are getting on extremely well. In Sanchez's winze, sinking below the 65, the lode is very firm and compact, and worth 2 tons of ore per fathom, and the ground hard for sinking.

HOLLOWAY'S OINTMENT AND PILLS—MODERN SCIENCE.—The time is not remote when all hereditary skin diseases were pronounced to be incurable; but, happily for all such sufferers at the present day, the use of Holloway's noble remedies will speedily dispel this discouraging delusion. Serotulous sores, strumous affections, glandular swellings, and inflammations, yield a ready and painless obedience to the cooling, rectifying, searching, and strengthening properties of this well-known ointment, and these justly esteemed pills. Their accompanying directions will enable everyone to apply these remedies to the best advantage, and no one need fear that any evil will result from the adoption of Holloway's purifying treatment, provided the diet be regulated, and the instructions receive even moderate attention.

COPPER MINES IN SANTO DOMINGO—No. III.

SIR.—My first letter to the *Mining Journal*, inviting attention to the great mineral wealth in the district of El Cobre, St. Domingo, included the elaborate report of Col. T. Heneken, long residing in that island, and which I have no doubt has been accepted by your readers as the *dicta* of a well-informed and experienced Geologist, as well as an indefatigable investigator of the practical results derivable from the aggregation of Copper Lodes that has been there discovered. My second letter contained the corroborative Reports of Don Manuel Fernandez de Castro and Prof. Ansted, of greater eminence, probably, than Col. Heneken, as geologists, in Europe, and particularly in Spain and England.

In this, my third communication on the subject, I submit, with much confidence, the simple and, I am satisfied, the very reliable statements made by two Cornish Miners, whose testimony, relative to the productive nature of the mines, like that of Col. Heneken's, completely verifies the expectations set forth in the antecedent and chiefly geological examinations recorded by De Castro and Ansted.

Report of Capt. John Pooley, preliminarily addressed to T. S. Heneken, Esq., St. Domingo. In compliance with your request that I should submit my opinion upon our mines here, I beg to hand you a brief report, as follows:—Lode No. 1 we have cut and opened upon over a length of 150 fms., at several places; it is 1½ ft. wide, composed of rich copper, mixed with spar, flockan, and good killas, such as generally accompany profitable lodes. We have not worked on this lode at a depth of more than 15 ft. from the surface, such as miners call, in Cornwall, costeaning. We have taken from the whole of these parcels of copper of the rich quality. This lode bears nearly an east and west direction. Lode No. 2 A, near the bridge, we first wrought on at the commencement, and raised or broke out 10 tons of copper of first-rate quality. This lode is 2 ft. wide. At present (Jan. 31, 1861) the end or level driven on it is not rich. The lode at present is composed of flockan, quartz, good stones of copper, and other qualities congenial to copper lodes. No. 2 lode B, at Bartolo's shaft, is one and the same lode as at the bridge, but wrought upon at the distance of ½ mile in length on this part. We, as you know, devoted the greatest portion of our operations here; we sank as deep as 5 fms., I have taken out from 40 to 50 tons of copper. The rock, or walls, of the lode are of the same character as I have always observed to accompany good lodes in Cornwall. You are aware that now a deeper level is requisite to reach the bunch of copper gone down in the bottom of the adit. Lode No. 3 is traceable over good outcrops, but has not been cut open below the surface. Lode No. 4 we only sunk a few pits into on the back, from which we have taken good parcels of copper, of the same quality as we find in the other lodes. Lode No. 5 is 2 ft. wide, bearing in a north-east direction, and will intersect No. 1 at a certain point, which will undoubtedly enhance, or enrich, one or both lodes at the junction. From this lode very rich samples of copper have been taken, all near the surface. Lodes Nos. 6 and 7, between the lodes Nos. 2 and 4, have been cut upon their outcrops, and show good stones of copper, although we have done little more than uncover them. All these lodes are taking their course into high hills, or rather mountains, into which adits can be driven at a depth of 100 to 200 fathoms from the surface. Here, in these hills, we require no engines or any other machinery to drain the water from the mines. I have to remark that we have not worked in a systematical mining form, but rather to cut and open upon, and test, the above-mentioned lodes; and I have to remind you that only three Englishmen, with myself, have not yet been able to develop this mine to any considerable length or depth. I beg to conclude by saying, from the quality of the copper shipped to England, and the appearances and deposits of copper which we now have, it is clear that this mine should be worked upon upon a large scale.

(Signed) JOHN POOLEY.

Report of Thomas Husband, miner, Bodminland, St. Ives, near Liskeard, Cornwall, addressed to Mr. J. W. Breffitt, London.

I have received a letter from you, dated Sept. 26, 1862, asking for a report from me, as I was the last Englishman that left the mines of Platano, St. Domingo, which I can give you nine months later date than Captain Pooley, and proved the main object that is now under consideration—the intersection of the two lodes, Nos. 2 and 5, at the Bridge. The lodes by the Bridge first, this being one of the best places that I can recommend on the mines; it is the intersection of two lodes, No. 5 and No. 2 (the last numbered lode, which runs at Bartolo's, or the deep shaft), and this is the place where we raised the best quality ores. It is shown at the surface for more than 50 fathoms in length, but at the intersection No. 2 is split up, or in a disordered state, still all of the branches are composed of copper of the best quality. These workings are very shallow, and of the most promising appearance, so far as seen; what is under remains to be proved. I can recommend this place as one of the best we have. The next are lodes Nos. 1 and 5. This place is between the Bridge and Bartolo's shaft, a little to the south-east, in the next gully from Bartolo's shaft. This is the second best place that we have, and is worked upon at a great length, and copper found at all these lodes, some pits not more than 3 feet deep, and others from 4 to 5 feet deep. There are two cross-cuts on these lodes, and good copper found in both; one of them has been driven since Captain Pooley left for England, and the lode in this one is 4 ft. wide, but I think its real width belongs to something smaller. I account for this by the two lodes intersecting each other at a very sharp point, and I am inclined to think that No. 1 being the strongest, that it has carried No. 5 along with it as it runs west; but there is a very fine appearance, and piles of copper now lying at the sides of the pits that anyone can see. The next is the lode No. 2, opened at Bartolo's, or the deep shaft. This lode, when first discovered here, was a rock of copper and spar, showing up from the surface. We brought in an open cutting, and this proved to be a good lode. Then we sunk a shaft on the same, and at the depth of 5 fms. we got through the shoot of copper, but continued the sinking of the shaft to the depth of 1½ fms., after which we discontinued on account of the water. We then drove levels through the bunch of copper, after which we stopped the lode through at the surface. This is where we raised the greater part of the copper ores from. The shoot of copper is now dipping eastward.

No. 3 lode is worked upon a little, but is split up and disordered. On No. 4, the next lode, the greater part of the work has been done since Captain Pooley left. There is a good show of copper at this place, which may be still seen, and the walls well formed, carrying a flockan from 3 to 4 in. wide, and good killas also. We discovered a copper stone about two miles to the eastward, near the River Aguatoca; this large copper stone we dug out, and broke it up, and it remains by the pit. Mr. Heneken took the course of the lode there, and found it to run exactly to No. 4, but we had no time to spare, being so short of men, to open the works as much as we ought. Lode No. 6 is a very strong lode, but hard, and requires blasting; it consists of copper and spar, a very healthy lode, but the level is driven into the side of the mountain instead of the bottom. The next lode is No. 7, which showed a good appearance at the mouth of the level, but did not show so well inside. There are a number of lodes more, but I believe they are not numbered, which consist of green carbonatite and grey copper, but not fully proved; but at the bridge is the principal place, and a little further east, in the north gully, is the second best place that we have, and is worked upon at a great length, and can go on the ground, and am willing to do so, with any gentleman you wish to send, and point out and show what I have now been writing. These two lodes in the north gully, Nos. 2 and 5, are strong healthy lodes, but are at the surface. One of them, No. 5, has been discovered in this gully since Captain Pooley left for England. I do not say whether these lodes are rich or poor below, that remains to be seen, this I say. I never saw a better appearance at the surface works in my life: there is no such show of lodes in this country as at St. Domingo, particularly at the bridge. I have no doubt if some of the other lodes were proved as much they would prove equal. I brought home some of the stones of the different lodes, and gave to different managers and agents; they prize those stones very highly, because they are very rich for copper, and contain particles of gold also. There must be a small engine in the mine for pumping water; if we had one we should have made a better return of copper at the bridge, and also at lodes Nos. 1 and 5, a little further to the south-west.—THOMAS HUSBAND.

Mr. J. H. Breffitt, who verifies these reports, and in other respects confirms the bona fides of the affair throughout, is connected with the establishments of Messrs. D. W. Witton and Co., of London, and Messrs. Geo. Breffitt and Co., Porto Plata, St. Domingo; both of which firms are willing to be referred to in proof of the reliance that may be placed on the respective statements. I venture, therefore, to assume that in taking the initiative of this undertaking, by forming a first-class joint-stock company to carry it on, I have every reason to rely upon a successful issue, both as regards the subscription of ample capital, and the still more important results of satisfactory returns, upon which points I hope to address you again.

J. LEE STEVENS.

PURIFIED COKE FOR IRON SMELTING.—Mr. E. Kopp, a German chemist, describes the following mode of purifying coke, a subject of considerable interest both to coal mine proprietors and ironmasters. After the conversion of coal into coke in the usual way, it is taken red-hot from the furnace. In well-constructed coke furnaces this is effected mechanically; the furnace is open at each extremity, and a very thick shield-shaped plate of cast-iron, adjusted to a strong-toothed rod of iron, which is propped with great force by gears, gradually pushes before it, and finally expels from the furnace, in a single block, the whole of the prepared coke. The incandescent coke is generally extinguished by throwing a large quantity of water over it. This water it is proposed to acidulate with hydrochloric acid. The incandescent coke may contain protosilphide of iron, proceeding from the pyrites, which at red heat have lost half their sulphur, sulphide of calcium proceeding from the reduction of sulphate of lime, phosphates, silicates, &c. By contact with the diluted hydrochloric acid, the sulphides of iron and calcium are transformed into chlorides of iron and calcium, with disengagement of sulphur dioxide, which is carried away by the water vapours, escaping abundantly when the coke is extinguished. The phosphates are converted into soluble biphosphates, and even the silicates may be attacked; the basic dissolves as chlorides, a portion of the silica at the same time becoming soluble, which happens when a silicate is digested, hot, in a very diluted acid. Were the coke merely sprinkled with hydro-chloric water, and allowed to dry immediately from the heat retained in it, even when the burning had ceased, the chlorides, biphosphates, and silica would remain; but certainly the sulphurated hydrocarbons, and with it nearly all the sulphur, would have been eliminated. But, on the contrary, if the coke were impregnated with acid solution, and then washed with water, a large portion of the impurities specified would be expelled by the washing. The washed coke can then be dried, either in the air or by the unutilised heat of the coal kilns. To impart to it still more qualities of charcoal, it may be sprinkled with a weak solution, or powdered over with dry carbonate of soda, as free as possible from sulphate. The carbonate of soda, prepared by means of cryolite (double nitrate of aluminium and sodium) naturally containing no trace of sulphur, answers best for this purpose. In most instances finely-powdered cryolite may be used with advantage, and ½ to ½ per cent. added to the coke. Cryolite supplies economically the alkali which the coke lacks; and though the soda exists in this mineral in the state of fluoride, there seems no doubt as to its beneficial influence. We have had occasion to make several trials in fusing cast-iron and steel with coke purified by weak hydrochloric acid, with the addition of a little carbonate of soda, and the results were decidedly favourable, as compared with those obtained with ordinary unprepared coke. Finally, we think that a series of experiments should be undertaken, to ascertain what effect cryolite used in blast-furnaces would have on the yield and on the quality of cast-iron, and in puddling-furnaces on the properties of puddled steel. Cryolite is found in very large masses in Greenland, and the price will decrease as the applications of it become more numerous.—*Mechanics' Magazine.*

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Mining Correspondence.

BRITISH MINES.

ALLT-Y-CRIB.—T. Paul, June 27: The mine has been re-dialed, and we find the end of the deep adit is about 15 fms. from the lode, on which are the extensive old workings. The lode in the adit contains small branches of lead ore, which we reasonably expect to increase as the junction with the other lode is approached. Some arrangements ought to be made at once for sinking from the bottom of the old workings to meet and ventilate the deep adit; for otherwise, should a good bunch of ore be cut, it will be some months before it can be worked, for want of ventilation. The sinking would also prove the lode, and we might probably get ore to partly meet the expense of the shaft.

BAGTOR.—W. Hosking, July 2: Proper eastern engine-shaft is sunk 16 fms. deep, at which point west we have a very fine shoot of tin; the lode is about 1½ foot wide giving excellent work, and embedded in very favourable ground. We have nearly completed the line of rods to the western engine-shaft, which we hope to resume sinking in the course of a few days; the present depth is 9 fms. We are anxious to resume our progress at this point as early as possible, in order to get down and extend our levels in whole ground, under the ancient workings, our expectations from which I have before explained. Our machinery, and other minor matters connected with the mine, are very satisfactory

to the west of this shaft we have now opened and so far cleared. We have resumed the extending this level west towards the gossan shaft, where we have seen a fine-looking lode, and have raised some good stones from the bottom of the adit. The lode in the 6 fm. level west is 4 feet wide, composed of soft quartz, jack, arsenical iron pyrites, black copper ore, and what is called a cab to the north, the size of which we have not yet ascertained, containing rich work for tin; altogether it is as fine a looking lode as I have seen for many years. I am so far well pleased with the Dumpering lode. Numbers of old tributaries from all about the neighbourhood are flocking to see the stuff, and say they never saw prettier looking.

CROWLWM.—Jas. Rosch, July 1: The cross-cut has latterly passed through some branches, underlying north, as the lode does; the main part of it has not been reached.

CUDDHA.—F. Puckey, E. Dunstan, July 2: In the 80 cross-cut north, west of Walker's shaft, we have cut into the lode 5 feet. The south or tin part of the lode for 3 feet wide is worth 15/- per fathom; beyond that point, as far as seen, it contains gossan and iron. In the winze sinking below the 75, west of the shaft, the lode is still 4 feet wide, composed of quartz and a beautiful peach, worth 30/- per fathom for the length of the winze 9 ft. In cutting out the lode in the 75, west of the winze, it is full 6 feet wide, containing tin throughout. The south or tin part of the lode is not so good as last reported, the present value of the same being 20/- per fathom. The stopes in the back of the 60, west of shaft, is without alteration. The lode is 3 feet wide, and worth 10/- per fathom.

CWM BRANE.—July 2: The 40, north of engine-shaft, is improving, and will probably due to 1/2 ton of ore per fm.—set to drive at 6f. The 40, south of shaft, is also looking better, and producing good lead, but not sufficient to estimate its produce; the lode is very large, and we are driving the level in the middle of it—set to drive at 4f. 10s. We have set a stope in back of the 40 to four men, at 3/- per fm.; this stope will produce about 1 ton per fm. We have also set a winze in bottom of the 30, south of shaft, to two men, at 3/- per fm., good ore in same, but cannot judge its produce until more is done in it. We have also set a winze to sink in bottom of the 20 south to six men, at 3/- for length of winze (9 fms.), this will produce about 1 1/2 tons per fm. We have set four tribute pitches to eight men, at 7/- per ton of lead ore, dressed, at which price the takers expect to get good wages.

CWM ERFIN.—June 30: In the stope in the back of the 45, east of the cross-cut, the lode is worth from 8 to 10 cwt.s. of ore per fathom. In the stope in back of ditto the lode turns out 1/2 ton of ore per fathom. In the rise in the back of the 32, about 60 fathoms east of boundary, the lode is 4 ft. wide—unproductive. In the 20, to drive east of the boundary, the lode is 3 ft. wide, worth 15 cwt.s. per fathom. A winze to sink in the bottom of the 20 the lode is 5 ft. wide, and worth 12 cwt.s. of ore per fathom. In the stope in back of the 20 fm. level, 95 fathoms east of the cross-cut, the lode contains tins mine blonde. In the 10, to drive east of the boundary, the lode is all the breadth of the end, and worth 1 1/2 ton per fathom. A stope in back of the 10 is coming up under the cross-cut in the adit, and is still worth 1 ton of ore per fathom. In the 10, to drive west of the engine-shaft, the lode is small and unproductive.

CWMHEISIAN (GOLD).—G. Williams, June 29: East Mine: For the last month we have been stopping down the gold lode, and splendid stuff has been brought to grass. Finding that we have so many hundred tons at surface, I have, in accordance with your instructions, stopped the miners here as the floors are full. At the west mine the men will complete the room for the turbine this week. The progress on the waterfall level for the month is 4 fms. 4 ft. 8 in.; the lode is much the same in size, but looking more kindly for this ore. Surface: The water-course will be completed for the working of the turbine this week. The cottages will be completed this week. I hope the machinery will be at work when next reported.

DALE.—R. Nines, July 2: The sinking of the new engine-shaft is progressing most satisfactorily, and is now 3 1/2 ms. below the surface.

DEEP LEVEL.—July 2: We are progressing very well with the boring, and from present appearances shall get on very fast, as we are getting into better ground for boring.

DRAKE WALLS.—T. Gregory, July 1: In the 102, east of Matthews' shaft, the branches are worth 7/- per fm. The branches in the 60, west of Brenton's shaft, are worth 14/- per fm., and very promising: we expect we are getting near the cross-course in this level. In the 60, west of Brenton's, and west of the cross-course, the branches are improving, and worth 14/- per fm. for the part being carried. The branches in the 40, west of Brenton's, are worth 15/- per fm. Hooper's rise continues worth 12/- per fm. We hope to resume the sinking of the winze below the adit, the course of a few days, the object of which is to communicate with Hooper's rise and stopes. We are progressing favourably with the drawing and crushing of tin-stuff. There is no change to notice in any other part of the mine.

EAST BRONFOLOYD.—C. Williams, June 29: We have discontinued all workings above the 15 fathom level, with the exception of cross-cutting the lode, which we do by four men. The lode in the cross-cut is looking very kindly, showing strong ribs of carbuncle of lime and a little ore, but not to value. The engine-shaft is going down regularly.

EAST CARADON.—James Seccombe, July 1: Caunter Lode: The 50 east is worth 15/- per fm. The 60 east is worth 10/- per fm. We are continuing the cross-cut behind this end, towards the north or main part of the lode. The 70 east is poor. The 70 west is worth 30/- per fm. New Lode: The 60 east is producing saving work. The 70 east is worth 6/- per fm. The 70 west is worth 6/- per fm. The lode at Seccombe's shaft is cut into 3 feet, but not yet cut through.

EAST CARN BREA.—T. Gavillie, July 1: There is nothing new in either of the mines since our reports of last week.

EAST CLOGAU.—K. Roberts, June 30: We are making good progress in driving by the side of St. John's lode, in No. 1 level, and should continue to find the ground in a similar state as it was found during the last week's driving we shall be able to prove the value of the lode in depth in a much shorter time and with less expense than if we were to work on the lode itself, as the before-mentioned lode is so very hard for driving. St. James' lode, in No. 2 level, is 2 1/2 feet wide; it has an aspect just similar to that which I have previously reported on. Saturday last I suspended the driving of this level for some time, in order to make a cross-cut to the south, according to Mr. Wright's direction. St. John's cross-cut we are pushing on as fast as the nature of the ground permits, and no time will be lost on my part in order to meet the junction of the St. James' and St. John's lodes.

EAST DARHORN.—June 30: We have this day sampled 70 tons of lead ore, raised on Mr. Lovenden's land, and 12 tons raised on Mr. Pugh's. We have not anything new to notice in our tawtwork bargains or tribute pitches, being of much the same character as when last reported.

EAST DYLIFFE.—J. Evans, June 30: Our progress in the shallow adit continues improving. We are opening good and profitable tribute ground in the end driving south; the lode is turning nearly north and south. The pitch in the back of the same is being worked continually by eight men, who are cutting good ore. The pitch in the 10 fm. level holds out much the same. The tribute pitches in the deep level are greatly improving. The men are getting on well with the engine-shaft, and meet with some good lumps of lead and copper ore, but they are not yet in the lode more than 5 inches.

EAST GUNNIS LAKE AND SOUTH BEDFORD.—Jas. Phillips, July 2: We are driving by the side of the lode at the 36 east. Gard's shaft is still sinking in favourable ground. No other change.

EAST ROSEWARNE.—J. James, July 2: We have good stones of ore under the slide at Hallett's shaft, and when a little more out of its influence we may expect further improvement. In the 65 east we have discovered a small branch on the south side, producing stones of ore, but not to value. No change to notice in the rise over this level, still worth 14/- per fm. The 65 west is producing good stones of ore, with a more promising appearance. The stope below the 55 east is worth 15/- per fm. In the 55 west we have a hard floor of ground, in consequence of which the lode is at present small and but of little value. In the 55 west the lode is improved, now 18 inches wide, worth 18/- per fm.; the stope over this level are worth from 12/- to 25/- per fm., average value 16/- per fm. We are making good progress in rising against King's shaft.

EAST THEREBURY.—J. Narcarow, June 30: The 40 north is being pushed on as fast as possible. In the rise above the 40 east there is a small rich leader of ore. The lode below the 40 improves; the winze is completely drained, and there is great probability of this ore making down. The 55 continues wet; the lode is 1 1/2 ft. wide, with a leader of ore in the upper part of the end. The lode in the rise above the 55 is for the present small.

EAST MARGARET.—R. James, W. Williams, J. H. Birch, July 2: In the 87, east of engine-shaft, the lode is worth 8/- per fm.; the north branch referred to in former reports has joined the lode, and from present appearance will go on together in future. In the 87 west the lode is worth 13/- per fm., and of a good appearance. We have not driven west on the north branch since our last report; its present value is 6/- per fm. At the engine-shaft below the 87 no lode has been taken down. In the 77 east and west the lode is poor. In the 67 west the lode is producing tin-stuff of low quality. In No. 2 winze, in bottom of the 67 west, the lode is worth 6/- per fm. In the 67 east the lode is worth 6/- per fm. In the 57 east the lode is worth 8/- per fm. In the stope in back of the 57, near the end, the lode has improved, worth 20/- In the 47 east the lode is worth 7/- per fm. No other change.

EAST WHEAL FORTUNE.—R. Roberts, July 1: The adit level is now nearly in to the western end of the shaft; the ground for the last 6 ft. has been very hard, which has somewhat retarded our progress, but it is now easier. The lode in the end is getting larger going east, composed of mundic, blonde, and stones of tin.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, June 27: Main Lode:

The engine-shaft to divide and case from the 55 to the 66, take out penthouse, &c., by nine men, as per bargain, 11/-, when they will commence to open both east and west on the lode; there is a good lode in the bottom of the shaft, and of which we shall be able to speak fully in our next. The 55 west, to four men, at 4/- per fathom; lode from 8 to 10 in. wide, and producing stones of ore and tin. Caunter: The lode in the 55, east of cross-course, is nearly 18 in. wide, and set to two men, at 5/- per fm. The 55 west cross-course, to two men, at 4/- per fathom; lode from 8 to 10 in. wide, yielding good stones of yellow ore; this is a kind lode, and which we will shortly improve. The 45, east of cross-course, to four men, at 4/- per fm.; the lode is split into branches, but which are meeting, when we anticipate an improved lode. The 45, west of cross-course, to four men, at 5/- 10s. per fathom; lode from 8 to 10 in. wide, yielding good stones of ore, some of which are yellow. —Middle Branch: The 45, west of cross-course, to two men, at 4/- per fm.; lode from 8 to 10 in. wide, and yielding 1 ton of ore per fm. The 55 cross-cut, north of main lode, to four men, at 5/- 10s. per fm.; here we have from 9 to 10 fm. to drive to intersect the middle branch seen in the 45. The 45 cross-cut north, to four men, at 3/- 5s. per fathom; the ground is very easy, and we have to-day discovered another branch, which is from 8 to 10 in. wide, yielding some very good ore; we hope to be able to speak more fully of this next week.

G. R. Odgers, W. Bennetts, July 1: The lode in the engine-shaft is from 2 to 2 1/2 ft. wide, producing from 5 to 6 tons per fm., and looking very promising; we have commenced driving and casing the shaft from the 55 to the 66. The lode in the 55, east of the cross-course, on the counter, is improving, and we think it will improve more.

EAST WHEAL LOVEL.—J. Burgen, July 1: I have the satisfaction of reporting to you that the course of tin recently discovered in the sump-shaft sinking below the 27, in the Fat Work part of East Wheal Lovel, still continues to improve, and valued yesterday by an agent who inspected it for distant shareholders at worth at least 150/- per fm., sinking by six men, at 11/- per fm., and from which over 25 tons of black tin of best quality have already been raised. In addition to this, a cross-cut is now driving north to intersect other known lodes of great promise. This part of the mine has attracted great attention for many years, and I trust it will realise the expectations formed of it.

EAST WHEAL RUSSELL.—J. Goldsworthy, July 1: Homersham's shaft is in regular course of sinking below the 120 in favourable ground for progress. Maynard's cross-cut, in the 120, driving north, the ground is a little harder, in consequence the progress is rather slow. In the 120, east of Maynard's cross-cut, the part of the lode being carried is 4 ft. wide, composed of capel, iron quartz, prian, and produces a little red oxide of copper ore; the lode being hard the progress is slow. In the 120, west of Maynard's cross-cut, the part of the lode being carried is 4 ft. wide, composed of capel, iron quartz, and prian, but no ore at present. In Vigor's cross-cut, in the 120 east, driving north, the ground has become harder, in consequence the progress is not so good. In the 120, east of Vigor's cross-cut, the part of the lode being carried is 4 feet wide, composed of capel, quartz, peach, gossan, and producing saving work; the lode is of a promising character. The 110, west of Fawin's cross-cut, the lode is 4 feet wide, composed of capel, gossan, iron quartz, prian, and mundic. John's stope, in the back of the 110, is worth 12/- per fathom. George's stope, in the back of the 110, is suspended for a time, and the men are removed to put up a rise on a south part of the lode, in the back of the 110, to prove the same, which we have reason to believe will open tribute ground. In the 85, west of Molland's cross-cut, on the north part of the lode, the part being carried is 3 1/2 feet wide, composed of capel, quartz, and mundic, and yielding stones of grey and yellow

copper ore. Harvey's rise, in the back of the 65, is communicated to the 45; we shall at once commence the rise in back of the 45 for proof of the lode referred to in former reports. The lode in the 45 east is composed of fookan, quartz, and mundic, and producing occasionally stones of yellow copper ore. In the 65, east of Collings's cross-cut, on the north part of the lode, the lode is 1 ft. wide—unproductive. In the 85, west of Hitchins's engine-shaft, the ground in the cross-cut, driving north, is a little harder for progress.

FRANK MILLS.—J. P. Nicholls, J. Cornish, July 1: We have cut through the west lode in the 100, and driven a few feet on its course, both north and south. We find it to average, so far, about 4 1/2 ft. wide, consisting of sandy quartz, jack, and lead ore, and worth of the latter from 1/2 to 1 ton per fm. We have suspended the 100 south, on the east part of the lode, and the lode is 1 ft. wide—unproductive. In the 85, west of Hitchins's engine-shaft, the ground in the cross-cut, driving north, is a little harder for progress.

GAWTON.—G. Bowe, June 27: The ground in the new engine-shaft is getting stiffer, and producing good lead, but not sufficient to estimate its produce; the lode is very large, and we are driving the level in the middle of it—set to drive at 4f. 10s.

CUDDHA.—F. Puckey, E. Dunstan, July 2: In the 80 cross-cut north, west of Walker's shaft, we have cut into the lode 5 feet. The south or tin part of the lode for 3 feet wide is worth 15/- per fathom; beyond that point, as far as seen, it contains gossan and iron. In the winze sinking below the 75, west of the shaft, the lode is still 4 feet wide, composed of quartz and a beautiful peach, worth 30/- per fathom for the length of the winze 9 ft. In cutting out the lode in the 75, west of the winze, it is full 6 feet wide, containing tin throughout. The south or tin part of the lode is not so good as last reported, the present value of the same being 20/- per fathom. The stops in the back of the 60, west of shaft, is without alteration. The lode is 3 feet wide, and worth 10/- per fathom.

CWM BRANE.—July 2: The 40, north of engine-shaft, is improving, and will probably due to 1/2 ton of ore per fm.—set to drive at 6f. The 40, south of shaft, is also looking better, and producing good lead, but not sufficient to estimate its produce; the lode is very large, and we are driving the level in the middle of it—set to drive at 4f. 10s. We have set a stope in back of the 40 to four men, at 3/- per fm.; this stope will produce about 1 ton per fm. We have also set a winze in bottom of the 30, south of shaft, to two men, at 3/- per fm., good ore in same, but cannot judge its produce until more is done in it. We have also set a winze to sink in bottom of the 20 south to six men, at 3/- for length of winze (9 fms.), this will produce about 1 1/2 tons per fm. We have set four tribute pitches to eight men, at 7/- per ton of lead ore, dressed, at which price the takers expect to get good wages.

CWM ERFIN.—June 30: In the stope in the back of the 45, east of the cross-cut, the lode is worth from 8 to 10 cwt.s. of ore per fathom. In the stope in back of ditto the lode turns out 1/2 ton of ore per fathom. In the rise in the back of the 32, about 60 fathoms east of boundary, the lode is 4 ft. wide—unproductive. In the 20, to drive east of the boundary, the lode is 3 ft. wide, worth 15 cwt.s. per fathom. The stops in the 20, driving east of the boundary, the lode is all the breadth of the end, and worth 1 1/2 ton per fathom. A stope in back of the 10 is coming up under the cross-cut in the adit, and is still worth 1 ton of ore per fathom. In the 10, to drive west of the engine-shaft, the lode is small and unproductive.

GOGGIN.—June 30: The lode in the 100, east of Gilbertson's shaft, is a little improved, now being 5 ft. wide, and yielding some good stones of ore. The lode in the rise over the 80, west of Bryn Pic's shaft, is 3 ft. wide, yielding 8 cwt.s. of ore per fathom. The winze in the 70 yields saving work. We have started the cross-cut to drive south in the 80, west of Bryn Pic's shaft, the lode is all the breadth of the 80, or deep adit level, by four men, and I hope we shall cut something good there. The six pitches in the various levels produce on an average 10 cwt.s. of ore per fathom. We are making good progress at Level Newydd, and at the surface and underground. Every point of the lode will be carried on as fast as possible.

GREAT BRIGAN.—T. Trelease, G. Gates, June 27: The lode in the 61, driving west of the engine-shaft, is 20 in. wide, containing good stones of ore; ground more favourable for driving; the lode in this level, east of the shaft, is 1 ft. wide, with a little ore, but not to value. The lode in the cross-course shaft is 3 ft. wide, producing stones of copper ore, of a promising appearance. The lode in the 49, driving east of shaft, is 1 ft. wide, producing a little ore, but not of much value. The lode in Ton's shaft, sinking below the 32, is at present small and unproductive. The lode in the 42, driving east of the boundary, the lode is still split and disordered; the lode in this level, driving west of the 32, is 15 in. wide, worth 10/- per fathom. The lode in Highbourn shaft, sinking below the 33, is 3 ft. wide, worth 10/- per fathom. —A kindy lode. The lode in the 33, driving east of the latter shaft, is 2 ft. wide, worth 6/- per fathom. We have erected a horse-whim on our eastern boundary shaft, and purpose sinking a winze below this winze we shall soon intersect the cross-course; when we expect this lode will prove productive. We will give you the size and character of the lode in our next report. No other change.

GREAT DEVON AND BEDFORD.—G. Richards, June 29: Since my last general report we have been opening on the large, or main lode, about a distance of 150 fathoms on its course east, and it proves to be, throughout this length, of the same highly satisfactory and congenial appearance, being composed of rich gossan, quartz, mundic, light capels, impregnated with copper, and a small proportion of black oxide of copper ore; for 130 fathoms from the western boundary this lode is intersected by a cross-course, proving 3 feet wide, of a very favourable nature. We have not as yet done anything further on the lode discovered in the eastern part of the sett. The costeaneing has been continued towards the south part of the property, but we have not yet intersected any other east and west ledges; on sinking a pit in the north-eastern portion of the ground, however, we discovered another very fine cross-course of the most promising character, consisting of a large quantity of gossan, quartz, peach, and mundic. We have commenced the sinking of the engine-shaft, which is down 4 fathoms, in favourable ground for progress; and for the purpose of drawing out the water from the same, and also hauling the stuff before the erection of the steam-engine, we are putting up a horse-whim, which will be completed this week. The position of the engine-house is marked out, and the excavations for foundation will be proceeded with as fast as possible; also the building of the carpenter's shop, smith's shop, office, and stores, will be commenced at once, and men are now engaged quarrying stone for the purpose.

GREAT NORTH DOWNS.—Thos. Trelease, June 27: The lode in Vivian's engine-shaft, sinking below the 47, has improved; it is 3 1/2 ft. wide, and worth 8/- per fathom. The lode in No. 1 winze, sinking below this level, is a little improved; it is now 3 ft. wide, worth 6/- per fathom. The lode in Jenkin's shaft, sinking below this level, is 4 ft. wide, worth 16/- per fathom, and of a very kindy appearance. The lode in the winze sinking below this level, east of the latter shaft, is 2 feet wide, worth 8/- per fathom. Job's shaft is now cleared below the 60 fm. level 2 fms. 4 ft.; the lode both ends of the shaft is all taken away. We find the water does not drain in Cook's shaft below the 60, and in order to drain this part of the mine, which is about 50 fathoms west of Job's, we shall be under the necessity of draining with a lift; I have purchased a 9-inch one for this purpose, and shall commence about this work without delay. We intend to draw it with a chain through the 50. The old workers had a lift in this shaft, as we have found their angle-hob in the 50, therefore we have no chance of seeing the bottom of this shaft unless we use the same means. The lode in the 17, driving east of Brown's shaft, is 2 feet wide, worth 8/- per fathom. We will consider our prospects in the bottom of the mine to be a little improved.

GREAT SOUTH TOLGUS.—J. Daw, July 1: Lyle's shaft is suspended for a short time until the sumpmen have completed fixing a new plunger-lift, which will take them 9 or 10 days longer to fix. The lode in the

connected them to the new engine. The 20 fm. level, west of cross-cut, is worth 10t. per fathom, and the lode of a most promising character. The lode in the 10 end, east of engine-shaft, is worth 9t. per fathom. These are all the bargains we can value today, the remainder being under water.

PENKALT.—Capt. Jenkins, June 29: We are busy at the shaft, six men have been constantly employed in it; this has been an expensive as well as a dangerous job, but I am happy to tell you it is now completed and well secured. We have dropped the new lift down 11 fathoms, and have hauled up eight of the old pumps, besides a great quantity of old timber, but from the fact that it was poor timber at first, and has stood there for some time, it is quite useless for further purposes. Down 10 fathoms deep we found a plat in a most convenient place to begin our cross-cut. To-day is the first day of our month, and as the Cornishmen who were working in the shaft desired to have the cross-cut let on bargain, I set it to-day, after a hard contest, and they told me a former captain had paid 15t. per fathom for a cross-cut in the same ground; I have set them at 7t. per fathom, and find them tools, they finding materials, powder, fuse, &c. I have measured the ground, and find the cross-cut will be about 14 fm.; this will take about four months to cut the lode, if all goes well. The other two men employed in the shaft I have put to stopes further north than the old stope; the stope looks very well, yielding, I should say, from 15 to 18 cwt. per fathom; it is impossible to say precisely, as we have not drawn any stuff. There are four men working here, all on lead. The old stope is nearly finished, and we shall have to secure it with timber before we can get any more lead there. The surface works are progressing favourably, our dressing pares are employed daily, and our two road buddies are at work constantly dressing the slime ore. We shall soon get 20 tons ready for the market.

PENTRE LYGAN.—H. Evans, July 1: We continue to sink the shaft, and making fair progress, with twelve men.

PRIDEAUX WOOD.—F. Puckey, J. Puckey, June 22: In driving the 64, east of Kendal's shaft, the lode during the past month has been very 5s., having intersected another part of the cross-course; to the east of this cross-course the following bargains were set:—The new shaft on Drake Walls lode, to sink below the 15 by six men, at 12t. per fm., stent the month. The deep adit on Good Luck lode to drive east by four men, at 8t. 5s. per fm., stent the month. The tributaries will send their stuff to surface by the end of another week.

POLHIGEY MOOR.—S. Bennetts, July 1: The lode in the east shaft has improved, 6 in. of which in the west end will produce from 2 to 3 cwt. of tin to the ton of stuff. In the east end of the shaft, which is close by the cross-course, it is not so good. The counter lode, in the south shaft, is without alteration. In opening on the back of the engine lode, near the junction of No. 2 counter, 5 fm. from surface, we found a portion of the lode remaining, which proved to be very good, and its width about 3 ft. We hope to find the old bottoms here in the course of six weeks, where I think it very likely a good lode will be found. Both tributary and tattow tintifust from the Load-an-chase lode during the past month has produced an average of 5cwt. of tin to the ton.

PROSPER UNITED.—S. Lean, W. H. Martin, July 2: The lode in the 70, west of Louisa's diagonal shaft, is 4 ft. wide, and will produce 4 tons of ore per fm. The sumptuous will complete the plat, and be in a position to sink below this level next week. The lode in the winze sinking below the 60, west of this shaft, will produce 6 tons of ore per fm. We have in the present week communicated the 60 west, on the north part, to Hill's shaft. The lode in Hill's shaft, sinking below the 60, is 3 feet wide, containing saving work for tin. The lode in the 60, west of Hill's shaft, is 2 ft. wide, opening tribute ground for tin. In the 50, west of Hill's shaft, we have intersected the cross-course, which has disordered the lode. The lode in the winze sinking below this level is worth 7t. per fm. for tin. The lode in the 60, east of Louisa's shaft, is 2½ ft. wide, of a promising appearance, and contains good stones of yellow copper ore. The lode in the 50, east of the last-mentioned shaft, is 2 ft. wide, worth 5t. per fm. for tin. The ground in Hosking's engine-shaft, sinking below the 70, is without alteration since our last report—down 8 fms. The lode in the 60, east of Hosking's shaft, is 3 ft. wide, and looks more promising for producing mineral than for several fathoms past; it contains copper and tin, but not sufficient to value.

REDMOOR.—T. Taylor, July 1: The ground in the 60 east, on Johnson's, is a little better, and the lode yielding some good stones of tin. The lode in the 50 winze is about 2 ft. wide, worth 8t. per fm.; we have laid a tramroad into this winze. In the 40 east the lode is about 2 ft. wide, worth 7t. per fm. No alteration in the tribute pitches.

ROARING WATER.—Capt. Thomas, June 30: Since I wrote last I have employed several hands to remove a large piece of surface, lying on what I consider the main or principal part of Grady's lode, south of the open cut, and this day the back of the lode was hit on; and I am glad to inform you that for many years I have not seen richer copper ore; it is of a very peculiar character, which is rather difficult to describe; however, I send by this mail a small sample of it, which will speak for itself. This is the identical spot where I recommended in a former report to have the shaft sunk. There is no particular change in the new lode, or Orchard's lode, during the week, both looking well for the production of rich copper ore; however, we shall not be able to do much on these lodes until the new shaft is sunk on Grady's lode, which I hope will be fully arranged this week by Capt. Pauli and myself.

ROSEWARNE UNITED.—Thos. Richards, E. Carthew, July 2: The engine-shaft is sinking below the 10 fm. level. In the 10 fm. cross-cut, driving north, the ground is good for making progress. The second winze sinking below the trial level, east of boundary shaft, is looking pretty well; the lode is 2 ft. wide, worth 7t. per fm. The 10, driving east and west of first winze sunk under the trial level, is worth 6t. per fm. No alteration in the adit driving west of Duffield old mine. In dressing the copper ore broken under the trial level it is opening quite as good as was expected, and we think it is likely that we shall sample from this place about 50 tons of copper ore on the 25th inst.

SMITH'S WOOD.—W. Hosking, July 2: The lode in the engine-shaft presents the same appearance that it has during the last 3 fms. sinking; it is 3 ft. wide, producing moderate saving work for tin, with occasionally very rich stones of copper. The ground is very hard, but as we have nearly sunk to the 34, where we shall commence driving, I hope to be able to make greater progress in extending the levels, and thereby proving fully the value of the lode.

SILVER MOUNTAIN.—C. Williams, June 30: The masons are progressing with building the crushing, drawing, and engine-house, the walls of which are being built 4 ft. above the surface, and are all made of the best material. The bed for the engine is complete, and we are waiting for the engine, which I hope will be forwarded without delay. The pumping-wheel is completed, and everything connected to the pumping machinery is in a forward state, so in a short time we shall have this part of our machinery in motion, when we shall proceed with sinking Blue shaft.

SILVER VEIN.—E. Barn, June 2: The engine-shaft is down to the 40; we shall sink about 3 ft. more for a fork before casing and dividing the shaft, to get down the whim-kibbles, which will be pushed on as fast as possible. In the 30 north we have 4 fms. 2 ft. more to drive to reach the winze; the lode is as reported last week. In the stops in back of the 20, working by six men, the lode has been unproductive for the last picce taken down. The tribute department during the past week has improved a little; we have no other change in the mine to notice this week.

SORTBRIDGE CONSOLS.—R. Jackson, July 2: In the 50, west of ventilating shaft, the lode is 9 ft. wide, composed of mundic, capel, prian, and stones of ore. In Stancombe's stop in back of the 50, west of Mayne's cross-cut, on No. 2 south lode, the lode is 1½ ft. wide, worth 1 ton of good ore per fm. In the 40, west of John's cross-cut, on No. 2 south lode, the lode is 2 feet wide, yielding good stones of ore. In Stanton's cross-cut north at the 50, east of eastern shaft, the ground is easy for progress. In the 40, west of Gilber's cross-cut, on No. 1 lin lode, we have intersected a cross-course; no lode has been met with west of it yet. In the 40, east of Gilber's cross-cut, on No. 1 lin lode, the lode is 2 feet wide, yielding good stones of tin. In the 30, east of Fellow's cross-cut, on No. 1 lin lode, the lode is 2½ feet wide, producing a little tin. No change to notice in any other part of the mine.

SOUTH BULLER.—J. Hosking, June 27: Having found it impracticable to put in a skip-road in Hodge's shaft, the shaftmen have been employed in the past week in dividing, casing, and bed planking in such places as required it, to better draw with kibbles. We have completed it to the 40, and expect to finish it and draw from the 50 in another week. The lode in the 50 end, west of Hodge's shaft, is 10 in. wide, composed of quartz and mundic. In the 40, driving west of Hodge's shaft, the lode is 1 ft. wide, and worth for copper from 3t. to 4t. per fm. The lode in the winze bottom of the 40 is about 8 in. wide, and worth for copper from 5t. to 6t. per fm. In the 24, driving west of Hodge's shaft, the lode is 10 in. wide, and worth from 5t. to 6t. per fm. The 12 is cleared east of engine-shaft about 50 fms.

SOUTH CARADON WHEAL HOOPER.—Wm. C. Cock, June 27: The 90 cross-cut north is re-set at 18t. per fm. The character of the ground is precisely the same as described in former reports, being a compact elvan, the heads or joints of which are coated with fluor and mandic. The whim drawing is re-set at 7s. per fm.

SOUTH DARREN.—J. Boundy, June 30: Saturday last being out tutwork setting-day, the following bargains were set:—To stop the back of the 50 east by six men, at 3t. 10s. per fm.; the lode is 3 ft. wide, valued at 10 cwt. of ore per fm. As soon as the stope is high enough to put in a stull the end will again be resumed. To stop the back of the 70 east by four men, at 3t. 10s. per fm.; the lode is 4 feet wide, composed of a beautiful clay-slate, carbonate of lime, and lead and copper ore-dressing work. The lode at this point has a better appearance than for some time past. To stop the back of the 60 east by four men, at 7s. per fm.; the lode is 3 ft. wide, valued at 10 cwt. of ore per fm. The 40 to drive west by four men, at 6t. per fm.; the lode is 3 ft. wide, of a most favourable character; we shall take the 40 to the 30, west of the lode here this week. The 30 to drive west by six men, at 7s. per fm.; the lode here is not quite so large as last reported; present value 12 cwt. of lead and 10 cwt. of copper ore per fm., and showing indications of improvement. To stop the back of the 30 west by four men, at 7s. per fm.; the lode is 2 ft. wide, valued at 12 cwt. of lead and 10 cwt. of copper ore per fm., for 2 fms. in length. The 20 to drive west by four men, at 6t. 10s. per fm.; no lode has been taken down here for the last 6 ft. driving. As soon as the stuff is cleared out from the end we shall at once take down the lode. The machinery is all in good working order.

SOUTH DOLCOATH AND CARNARTHEN CONSOLS.—W. Roberts, June 30: In the rise in the back of the 50 the lode is 2 ft. wide, producing 2 tons of ore per fm. In the flat-rod shaft, sinking under the 12 fm. level, the lode is 2 ft. wide, producing 1½ ton of ore per fm. In other parts no improvement to notice.

SOUTH EXMOUTH.—J. P. Nicholls, G. Mander, July 1: The 60 cross-cut is extended about 11 fms. from shaft; it has recently passed through some small branches, the same as seen in the 45 before cutting the lode, but improved in appearance, and containing stones of lead. We have now, however, intersected what we believe to be the main part of the east lode, with stones of lead on the east wall, but we shall not be able to report its size and value for some days, in consequence of its letting out so much water as to make it very spare for eating through. The engine is now being driven ten strokes per minute to keep the coming water, but this will subside in a few days when the ground is drained. We had a similar influx of water when the lode was cut at the 45, which fell off in about a week. The west lode in the 45 end north is 3 feet wide, containing stones of ore, but not sufficient to value. The stop in back of this level, north of Rodda's rise, will yield 10 cwt. of lead per fathom. Rodda's stope, back of the 45, north of cross-cut, will yield 8 cwt. of lead per fathom. The 45 end south is without change since last report; the lode still consists of a beautiful gossan. The same report will apply to the 30 south.

SOUTH HERDOSFOOT.—July 1: During the past month the ground in the engine-shaft has been hard and troublesome. Our progress, consequently, has been slow. At present the ground is much easier. We shall have the cistern in by Saturday next, and be in a fair course of sinking. Just below the 24 a small east and west branch crossed the shaft, which contained mundic precisely similar to that found in the adjoining mine. We are driving the cross-cut westward, so as to take up what water we can, in order to ease the engine. The shaft is down 42 fathoms from surface.

ST. JUST CONSOLS.—J. Carthew, W. Williams, July 2: Since our last report the works throughout have been going very satisfactorily. We are glad to inform you that the stamps are doing duty to our entire satisfaction, and we believe it is a most excellent machine. The tin dresser and five assistants are preparing the dressing-floors for ties, frames, round-buttles, &c. All our underground operations continue to look well. The guide and river lode presenting such very favourable appearance have induced us to put two men to extend the deep adit level west in Casley's lode. There is a lode in the end now 3 feet wide—tinny throughout, and in a few days we shall put two men to clear the mill adit level on another lode. On the whole, these mines are looking well indeed.

ST. JUST UNITED.—J. Carthew, July 1: Our sumpmen are still engaged cutting down ground in the engine-shaft for the skip-road. We have got a long run of tin and copper ground east and west of this shaft, which I am anxious to make available, and I am pushing on our work with all possible dispatch, so as to get our steam whim to draw at this shaft. The masons began the engine-house yesterday. At the north lode shaft we have nine miners cutting tram-plat in the 62; we have discovered good tin ground holding down in bottom of this level. Six men are clearing the level east and west. Saturday next being our setting-day, I hope to set three or four tribute pitches in back of this level. Wheal Owl lode, in the adit level, is looking well. The mine throughout is looking well, and we shall break more tin this month than in any preceding one. With the additional boiler our engine is doing excellent duty, drawing the 45 heads of stamps much more satisfactorily than before.

TRELOWETH.—T. Richards, July 2: The engine-shaft is sunk below the 154 fm. level 10 ft.; the lode contains stones of copper ore. The 154 end is driven about 6½ fms. east of shaft; lode worth 6t. per fathom. In the 144 end, driving north through the lode, we have not yet cut the north wall of it. In the sump-winses, sinking below the 144, the lode is worth 20t. per fathom. In the rise above the 144 the lode is worth 7t. per fm. The ground in the 60 cross-cut, driving north, continues favourable for exploring, and it would be a desirable point to see the north lode cut in this level, which may occupy nearly three months to accomplish. In the 15 end, driving west of Carr's shaft, the lode contains much mundic. The pitches are looking much as usual for yield of copper ore.

TREVENAM AND TREMENHEERE.—J. Meddin, Wm. Tippet, July 1: We have cut down 6 feet of the new sump-shaft, cased and divided 3 fms. of it, and will put a pump on the lift ready for sinking. The 130, west of this shaft, is cleared, or nearly so, and will be driven again in a few days. No. 1 stope in the back is worth 7t. per fm.; No. 2, 7t. per fm. The 110, on south branch, is poor; the men are put to stopes the back, where the lode is worth 6t. per fm. No change to notice in both old stopes in the 70. The bob-pit in the 120, the cross-cut in ditto, and clearing ditto to work a chain through to drain the mine to bottom are all going on well. The men repairing Trevenam engine-shaft below the run, those clearing the 100 in middle of run, and the pair going down through it, with those clearing the 40 east, and the men sending up old pitwork, and repairing upper part of this shaft, are all progressing favourably. We are glad to say we believe we shall be enabled to restore the mine again within the time stated heretofore.

TRIMLEY HALL.—July 2: We are getting on very well with the excavations for the engine-house, &c.

TRUMPET UNITED.—G. R. Odgers, June 27: The engine-shaft is sunk below the 154 fm. level 10 ft.; the lode contains stones of copper ore. The 154 end is driven about 6½ fms. east of shaft; lode worth 6t. per fathom. In the 144 end, driving north through the lode, we have not yet cut the north wall of it. In the sump-winses, sinking below the 144, the lode is worth 20t. per fathom. The ground in the 60 cross-cut, driving north, continues favourable for exploring, and it would be a desirable point to see the north lode cut in this level, which may occupy nearly three months to accomplish. In the 15 end, driving west of Carr's shaft, the lode contains much mundic. The pitches are looking much as usual for yield of copper ore.

TYDDYNGLWADIS (SILVER-LEAD AND GOLD).—George Williams, June 29: Adit—

TYDNYLLWADIS.—J. P. Tippett, July 1: We have cut down 6 feet of the new sump-shaft, cased and divided 3 fms. of it, and will put a pump on the lift ready for sinking. The 130, west of this shaft, is cleared, or nearly so, and will be driven again in a few days. No. 1 stope in the back is worth 7t. per fm.; No. 2, 7t. per fm. The 110, on south branch, is poor; the men are put to stopes the back, where the lode is worth 6t. per fm. No change to notice in both old stopes in the 70. The bob-pit in the 120, the cross-cut in ditto, and clearing ditto to work a chain through to drain the mine to bottom are all going on well. The men repairing Trevenam engine-shaft below the run, those clearing the 100 in middle of run, and the pair going down through it, with those clearing the 40 east, and the men sending up old pitwork, and repairing upper part of this shaft, are all progressing favourably. We are glad to say we believe we shall be enabled to restore the mine again within the time stated heretofore.

TYDNYLLWADIS.—J. P. Tippett, July 2: We are getting on very well with the excavations for the engine-house, &c.

TYDNYLLWADIS.—J. P. Tippett, July 3: The engine-shaft is sunk below the 154 fm. level 10 ft.; the lode contains stones of copper ore. The 154 end is driven about 6½ fms. east of shaft; lode worth 6t. per fathom. In the 144 end, driving north through the lode, we have not yet cut the north wall of it. In the sump-winses, sinking below the 144, the lode is worth 20t. per fathom. The ground in the 60 cross-cut, driving north, continues favourable for exploring, and it would be a desirable point to see the north lode cut in this level, which may occupy nearly three months to accomplish. In the 15 end, driving west of Carr's shaft, the lode contains much mundic. The pitches are looking much as usual for yield of copper ore.

TYDNYLLWADIS.—J. P. Tippett, July 4: The engine-shaft is sunk below the 154 fm. level 10 ft.; the lode contains stones of copper ore. The 154 end is driven about 6½ fms. east of shaft; lode worth 6t. per fathom. In the 144 end, driving north through the lode, we have not yet cut the north wall of it. In the sump-winses, sinking below the 144, the lode is worth 20t. per fathom. The ground in the 60 cross-cut, driving north, continues favourable for exploring, and it would be a desirable point to see the north lode cut in this level, which may occupy nearly three months to accomplish. In the 15 end, driving west of Carr's shaft, the lode contains much mundic. The pitches are looking much as usual for yield of copper ore.

TYDNYLLWADIS.—J. P. Tippett, July 5: The engine-shaft is sunk below the 154 fm. level 10 ft.; the lode contains stones of copper ore. The 154 end is driven about 6½ fms. east of shaft; lode worth 6t. per fathom. In the 144 end, driving north through the lode, we have not yet cut the north wall of it. In the sump-winses, sinking below the 144, the lode is worth 20t. per fathom. The ground in the 60 cross-cut, driving north, continues favourable for exploring, and it would be a desirable point to see the north lode cut in this level, which may occupy nearly three months to accomplish. In the 15 end, driving west of Carr's shaft, the lode contains much mundic. The pitches are looking much as usual for yield of copper ore.

TYDNYLLWADIS.—J. P. Tippett, July 6: The engine-shaft is sunk below the 154 fm. level 10 ft.; the lode contains stones of copper ore. The 154 end is driven about 6½ fms. east of shaft; lode worth 6t. per fathom. In the 144 end, driving north through the lode, we have not yet cut the north wall of it. In the sump-winses, sinking below the 144, the lode is worth 20t. per fathom. The ground in the 60 cross-cut, driving north, continues favourable for exploring, and it would be a desirable point to see the north lode cut in this level, which may occupy nearly three months to accomplish. In the 15 end, driving west of Carr's shaft, the lode contains much mundic. The pitches are looking much as usual for yield of copper ore.

TYDNYLLWADIS.—J. P. Tippett, July 7: The engine-shaft is sunk below the 154 fm. level 10 ft.; the lode contains stones of copper ore. The 154 end is driven about 6½ fms. east of shaft; lode worth 6t. per fathom. In the 144 end, driving north through the lode, we have not yet cut the north wall of it. In the sump-winses, sinking below the 144, the lode is worth 20t. per fathom. The ground in the 60 cross-cut, driving north, continues favourable for exploring, and it would be a desirable point to see the north lode cut in this level, which may occupy nearly three months to accomplish. In the 15 end, driving west of Carr's shaft, the lode contains much mundic. The pitches are looking much as usual for yield of copper ore.

TYDNYLLWADIS.—J. P. Tippett, July 8: The engine-shaft is sunk below the 154 fm. level 10 ft.; the lode contains stones of copper ore. The 154 end is driven about 6½ fms. east of shaft; lode worth 6t. per fathom. In the 144 end, driving north through the lode, we have not yet cut the north wall of it. In the sump-winses, sinking below the 144, the lode is worth 20t. per fathom. The ground in the 60 cross-cut, driving north, continues favourable for exploring, and it would be a desirable point to see the north lode cut in this level, which may occupy nearly three months to accomplish. In the 15 end, driving west of Carr's shaft, the lode contains much mundic. The pitches are looking much as usual for yield of copper ore.

TYDNYLLWADIS.—J. P. Tippett, July 9: The engine-shaft is sunk below the 154 fm. level 10 ft.; the lode contains stones of copper

- * With next week's Journal we shall give a SUPPLEMENTAL SHEET, in which will be published Papers on Our Railway System—its Early History; the New System of Geology; Mines, Mining, and Smelting in South Australia; the Quarterly Returns of Sales from the English and Foreign Mines in Cornwall and Swansea; the Tin Deposits of Bolivia; On the Liberation and Drainage of Gases from Coal Mines; Money Making, &c., &c.
- * With last week's Journal a SUPPLEMENTAL SHEET was published, which contains—Papers on a New Substitute for Silver; Metallic Magnesium—a New Element; Description of Improved Machinery for Crushing, Grinding, and Amalgamating Quartz, Quartz-Tailings, and other Auriferous Earth, Copper, and Silver Ore, &c.; Treatment of Gold Ores—New Processes; Money Making—No. VI.; Foreign Mining and Metallurgy. Meetings of Public Companies—West Caradon, East Wheal Martha, East Carn Brea, North Minera, Great Northern of South Australia, &c.
- * With the Journal of June 20 we gave a SUPPLEMENTAL SHEET, in which appears Papers on the Introduction of the Railway System; its Early History in the Southern Counties; Money Making; Foreign Mining and Metallurgy; the Tin Trade; An American Monster Furnace; Meetings of Public Companies—National Provincial Bank of England, Kapunda Mining Company, Gawton Copper Mining Company, Clarendon Consolidated Mining Company of Jamaica, Great Wheal Vor United Mining Company; The Carboniferous Deposits of the Staffordshire Moorlands; Treating Copper Ores, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, July 3, 1863.

COPPER.	£ s. d.	BRASS.	Per lb.
Best selected.....	95 0 0	Sheets	8½d.-9½d.
Tough cake.....	92 0 0	Wire	9d.-9½d.
Title	92 0 0	Tubes	10½d.-12d.
Burra Burra	98 0 0	FOREIGN STEEL.	Per Ton.
Copper wire, per lb. 0 1 0	0 1 0	Swedish, in kgs (rolled). 15 10 0	—
ditto tubes	0 1 0	" (hammered). 15 10 0-18 0	0
Sheathing & bolts, per ton. 99 0 0	0 0	Ditto, in faggots. 17 0 0-18 0	0
Bottoms	104 0 0	English, Spring 18 0 0-23 0	0
Old (Exchange)	85 0 0	Bessemer's Engineers Tool 44 0 0	—
IRON.	Per Ton.	" Spindie	30 0 0
Bars, Welsh, in London. 6 10 0	—	" Quicksilver	7 0 0 p. bottle
Ditto, to arrive	6 10 0	SPELTER.	Per Ton.
Nail rods	7 0 0	Foreign	17 15 0
Stafford, in London 7 10 0	—	To arrive	17 17 0-18 0
Bars ditto	7 5 0	SING.	—
Hoops ditto	8 7 0	In sheets	23 0 0
Sheets, single	9 5 0	TIN.	—
Pig, No. 1, in Wales ..	3 10 0	English, blocks	122 0 0
Refined metal, ditto	4 0 0	Ditto, Bars (in barrels). 123 0 0	—
Bars, common, ditto	5 7 0	Ditto, Refined	123 0 0
Ditto, merchant, in Tees 6 10 0	—	Banca	131 0 0
Ditto, railway, in Wales 5 12 0	—	Straits	127 0 0-127 10
Ditto, Swed. in London. 11 10 0	—	TIN-PLATES.	—
To arrive	11 10 0	IC Charcoal, 1st qua. p. bx. 1 7 6-1 8 6	—
Pig, No. 1, in Clydesdale	2 14 6-3 0 0	IX DITTO 1st quality	1 13 6-1 14 6
Ditto, f.o.b. in Tees	2 8 0	IC DITTO 2d quality	1 4 6-1 10
Ditto, forge, f.o.b. in Tees 2 5 0	—	IX DITTO 2d quality	1 10 6-1 12 0
Staffordshire Forge Pig. —	—	IC Coke	1 2 6-1 4 0
LEAD.	—	IX DITTO	1 8 6-1 10 0
English Pig, ordn. soft 20 7 6-20 15 0	—	Canada plates	p. ton 12 10 0-13 0 0
Ditto (WB)	22 15 0	In London	0
Ditto sheet	21 5 0	At the works, 1s. to 1s. 6d. per box less.	—
Ditto red lead	21 10 0	Yelow Metal Sheathing	p. lb. 8d.-8½d.
Ditto white	26 0 0-27 0 0	Sheets	p. lb. 8d.
Ditto patent shot	23 0 0-23 10 0	Indian Charcoal Pigs	6 12 6-6 15 0
Spanish	19 5 0-19 10 0	In London	0

REMARKS.—Although entirely devoid of anything like excitement, a tolerably lively tone pervades the Metal Market. Shipping orders are generally on the increase, India and China coming in with more freedom than for some time past. Comparatively good shipments of metals continue to be made to America, though it must necessarily be years before that country recovers its commercial prosperity sufficiently to become the customers they were to us before the war, and it is extremely doubtful if they ever will do so. Our trade with the European continent is opening up very satisfactorily, and enables us to bear the loss of the American trade without signal depression, thus proving the innate soundness of the metal trade.

COPPER.—The advance in price of English descriptions has been well sustained, more, perhaps, in consequence of the short supply of ores than from good demand, for, as is usually the case after a rise, buyers hold back. But few second-hand parcels are offering, and these at only fractional concession in price. Foreign remains quiet. Burra Burra, 98d.; Kapunda, 98d.; Chili, 84d. to 85d.; Spanish, 88d.

YELLOW METAL.—On the 30th ult. (four days subsequent to the rise in copper) manufacturers of yellow metal announced an advance in fixed rates of 4d. per lb., making the present price 8½d. The market, though stiffer, is, however, not equal to this figure. Sellers of sheathing at 8½d.; sheets, 8d.

IRON.—Railway bars steady, at quotations. Merchant bars in better request, and prices have an upward tendency—5½ lbs. at works, and 6½ lbs. f.o.b. here. In Staffordshire makes, owing to the paddlers' strike, the supply hardly keeps pace with the demand; prices are firm, and those works whose men are not out are very busy. Swedish bars very much neglected—quotations unaltered. Scotch pigs have touched 50s., mixed numbers, about the middle of the week, but have since declined to 52s. 7½d. closing buyers; sellers 1½d. more.

SPELTER.—One of those intermittent periods of activity which characterize this market has occurred since our last report, and prices have advanced to 17½ lbs. cash, 17½ lbs. hd. having been paid for arrival—about 200 tons are reported to have changed hands. Stock in warehouse here amounted on the 30th ult. to 5208 tons, against 4790 tons May 31, and 5724 tons at the corresponding period last year.

LEAD.—The market for English pig is inactive; sellers quote 20½ lbs. 6d. for ordinary soft; 22½ lbs. for WB; buyers are, however, difficult to meet with; Spanish pig, 19½ lbs.

TIN.—English steady, at fixed rates. In foreign, Banca is quiet, at 13½d.; business done. Straits at 12½d., three months; for arrival, 12½d. 10s. is quoted.

TIN-PLATES in good demand for shipment. Many makers of first-class brands have advanced their rates 6d. per box. I.C. coke, 23s.

QUICKSILVER in better request; prices unaltered—7½ per bottle.

THE TIN TRADE.—This article has undergone rather important changes since our last report. Early in the month the market was not only very firm, but even an advance was paid on Banca and Straits—as high as 185d. for the former and 127½ lbs. to 128d. cash for the latter. The Dutch market kept its position well at 80d. The westerly wind which, by the 10th of the past month, brought simultaneously about 15,000 slabs Banca into the Dutch ports caused a sudden check to the upward tendency, and those interested in the article began to reflect whether a sale of about 120,000 slabs would be sufficient grounds for its present enhanced value. The circulars of the Dutch commission houses, expressing their various opinions, increased the perplexity, and it was at one time very difficult to prognosticate the course of the article for the next two months. As the day of the sale drew nearer several sellers came out at 79f. and 78½f., and, not meeting with any buyers, operators began to offer tin ex the sale at 78f. This naturally had a depressing effect, and when, on the 24th inst., the telegraph announced that the whole of 119,092 slabs had been sold at 78½f.—equal to 130t. per ton laid down here—the trade was quite taken by surprise, as such a result had never been the least anticipated. After a little reflection, however, operators came to the conclusion that the price of 76f. was to be considered moderate, and all the tin offered from Holland was eagerly accepted. We calculate that, on the 24th and 25th inst., fully 150,000 slabs Banca were secured by English houses, which caused an immediate advance to 77f., and, during the last few days, as high as 78½f. has been paid in Holland. France and Germany have taken their share in the sale, and we may safely consider the tin to have gone into good hands. A great deal will now depend on the deliveries of the next two months. Should they come up to the average of former years we may calculate upon the advance being sustained; if, on the other hand, they should fall off, a reaction is sure to follow. Those interested in the article will do well to watch this closely. The effect on our own market was, for the moment, depressing; but confidence was soon restored, and we may now look upon our present prices for Straits as moderate compared with Banca. The deliveries in Holland during the past month have been double that of last year, which proves that stocks on the continent must be nearly exhausted. The consumption of foreign tin in this country is still curtailed, through its comparatively high price with English. Our stock here has not undergone any change from the last return; but, as the landings were nearly 300 tons, consumption and export must have absorbed this quantity. A good deal of Straits tin, too, having been bought during the last four weeks for foreign account, we may expect a moderate and steady export will continue for some time. According to the latest advice from Singapore and Pansang, the demand for Japan has ceased for the moment, through our complications with that country. There is no doubt, in case of war being declared, the demand for France would soon be resumed on a larger scale; but should no interruption of our amicable relations take place, shipments to Japan are likely to go on as before. The demand for China still continues.

ENGLISH TIN has not undergone any change during the whole of the month. The demand for refined has been good, and that for common only moderate. Second-hand parcels are now offering under official quotations.

STRAITS.—Early in the past month the market was firm—as high as 127½ lbs. and 13½d. cash for particularly fine parcels were paid; 130t., three months; and as high as

132t. afloat for distant shipments. Gradually the market became weaker, but holders did not press sales, which caused prices to be kept quite at its nominal value. After the result of the Dutch sale a few parcels changed hands at 126t. 10s. cash, at which there are now sellers. For three months' prompt 128t. is asked, while for tin now afloat 130t. is demanded, without meeting with buyers.

BASCA.—But little business was done during the first fortnight of the month, 125t., having been paid in one or two instances. As the Dutch sale drew nearer it became quite neglected, and after the sale several thousand slabs have been done at prompt August 24; now 131t. 10s. is asked. The Dutch market has improved from 76f. to 78f., with a very large amount of business.

The arrivals of tin in London during June were as follows:—Straits, per *Corsair's Bride*, 25½ slabs; ditto, per *Edward and Julie*, 6100 slabs; Banca from Holland, 50 slabs; Billiton, 500-9170 slabs.

TIN-PLATES.—Accounts from America are most depressing, particularly for charcoal, of which the market is overstocked, and, as far as we are able to judge, it is only by a total cessation of shipments during the next three months, that something like a favourable reaction can be expected; this, it is evident, would have a very bad effect on our manufacturers; we see, however, no other remedy, unless a material reduction in price, with the present value of the raw material, is not likely to be expected. We quote first-class charcoal 22s. f.o.b., Live rpool; second qualities, 20s. 6d. to 27s. The demand for coke, particularly the common sorts, has been tolerably active, for which in some instances an advance of 6d. per box has been paid; second-hand parcels, however, are obtainable at less than what the manufacturers ask. We quote ordinary cokes from 21s. 6d. to 22s., and the better qualities from 22s. 6d. to 24s. 6d., f.o.b., Liverpool.

—DADELSWEN AND NORTH.

GLASGOW, JULY 1.—Our Pig-Iron Market has at length assumed an entirely different aspect to that which has so long characterised it, and although we need not be very much surprised at it when we calmly consider the various circumstances that have been instrumental in changing its current from the ebb to the flood, we are nevertheless unable as yet to regard it as the prelude to a higher range of prices. It is now perfectly evident that the market has for some time past been unduly influenced by open or time contracts, the maturing of which has led to large purchases of warrants for cash. The shipments have likewise been above the average, and the home consumption of considerable magnitude. But chief over all in importance has been the political element, the power of which for good or evil few or none can gauge, nor yet determine the course in which it is likely soon to run. But a short time ago it seemed as if all our political complications were likely to get hopelessly complicated, whereas now we hear of nothing but war averted in one place, and of mediation in another to arrest its further progress. The olive branch seems now to wave where " erst the tocsins sounded," and consequently, our market has thrown off its recent lethargy, and made manifest its inherent vitality. In the early part of the month a fair amount of business was transacted day by day at 50s. 7½d. to 50s. 9d. cash; later on, the demand for cast-iron increased, and prices soon rose to 50s. 32s.; from this there was a reaction to 51s. 9d., at which we remained steady for some days, but on receipt of the *Persia's* news fresh vigour was imparted to the market, the price advancing rapidly to 53s. cash, at which we close business, holders asking 53s. 9d. The lowest price for the month was 50s. 7½d., the highest 53s., and the average 51s. 5d., against 52s. 7½d. in June, 1862, and 49s. 1d. in June, 1861. The gross shipments for the months of this year show an increase of 3610 tons over those of 1861. On this head there is no room for comment, the totals being so much alike.

1862. 1862. 1862.
140,213 128,737 125,408
188,028 168,869 174,136
Total tons..... 298,236 294,826 299,544

The local consumption we can only denote as large, and in excess of previous years. What it really is we cannot safely determine just now; but we may remark that it must be very much larger than we have any idea of before it, and the shipments can absorb the production of the 125 furnaces now in blast. The average number this year is five more than last, so that the production therefrom must be proportionately larger. If, then, with less power, we accumulated 100,000 tons of stock last year, what must the local consumption be, seeing shipments are about the same, if, as some suppose, there is no increase of stock this year? Our information does not favour the idea of any decrease, but rather the reverse; and although some of the brands most in repute are scarcer than they were, there are others not so circumstanced.—ANDREW WOODROW AND SON.

MIDDLEBRO'-ON-TEES, JUNE 30.—A month ago we reported our pig-iron market as being steady, with an upward tendency—that steadiness has been maintained during the whole of this month. Steadiness is a characteristic peculiar to the Cleveland Iron Trade. We neither recede nor advance, except gradually, and then only when there is a good reason for it. In this respect we contrast favourably with Scotland, the market there being always on the move, and at times subject to rapid fluctuations. The reason for this difference is to be found in the fact that undue speculation is unknown to the Cleveland market, whilst the Scotch article is sustained by speculative interchange. The demand for our iron is quite equal to the production, and unless some unforeseen occurrence arising out of the several vexed questions now engaging public attention determine otherwise, such a desirable state of things is likely to continue for some months to come. The demand for manufactured iron is satisfactory; and although there may be no great pressure for immediate delivery, the mills generally are fully employed. The various new works are being pushed forward with vigour, considerable additions having been made during the present month. Messrs. Bell Brothers are erecting two new furnaces at their Clarence Works, where they have six already in operation, and the South Bank Company are about to add three more to their present stock. At our shipyards, iron ships and steamers are being launched every week to make way for others already on order, and so numerous are enquiries that some of the applications cannot be entertained. The iron trade has sustained a loss in the death of Mr. A. B. Cochrane, the head of the firm of Cochrane and Co., of the Ormesby and Woodsdale Ironworks. The deceased gentleman's name has long been known in connection with many works of great magnitude undertaken by the firm under his superintendence.—ROBERT STEPHENSON AND CO.

The settlement of the fortnightly account took place in the MINING SHARE MARKET on Tuesday, and was particularly heavy, and not yet over in East Caradon and Crebor. Since account-day a fair average amount of business has been transacted in several mines, and some of them continue in good demand. It is satisfactory to find, also, that the standard for copper ore has again advanced this week, and that copper also has risen since our last remarks on the subject. East Caradon shares opened on Monday flat, at 26 to 27; on Tuesday they were very firm for cash, at 26½ to 27, owing to the short supply of stock at the settling, but flatter for the July account; indeed, there was a difference of 7s. 6d. per share, or equivalent to the giving that sum for the loan of shares; on Wednesday they were flatter, at 26½; Thursday, 25½ to 26½; on Friday they opened at 26½ to 27, and left off 27 to 27½. The report shows a falling off in the ends in the aggregate, since last week, of 5d. per fathom. The meeting has been called for Wednesday next, and the accounts, we believe, will show a profit on the quarter equal to about 12s. per share, but it is not certain that more than 10s. per share dividend will be declared. The managing committee have issued a circular to the shareholders, expressing an opinion that weekly inspections seriously interfere with working the mine, and that, therefore, they intend to propose monthly inspections. Marke Valley shares are flat, at 6 to 6½; the dividend here may, probably, be 1s. per share. Wheal Clifford Amalgamated shares have been in good request, and advanced to 29. 31. Bottle Hill shares in good demand, and advanced to 14s., 16s.; the south lode, in the new shaft, has improved to 25d. per fathom, and having a still improving appearance. Bryn Gwilog, 29 to 31. Central Minera shares rather more enquired for again, and leave off 32s. 6d. to 37s. 6d.; Cefn Cilcen, 30s. to 35s.; Cook's Kitchen, 25½ to 26½; Drake Walls, 1½ to 1½. East Basset shares have fluctuated, but leave off 7s. to 8s. Wheal Grenville shares have been rather flatter, at 6½ to 6½; the ends on the tin lode are worth, in the aggregate, 85s. per fathom, and the mine altogether looking well, but it appears that the price here, as well as in East Grenville, has been affected by over-buying for the "account," and, consequently, forced sales have been made for the settlement. East Grenville shares leave off 3 to 3½; the shaft is worth 18s. per fathom; the stopes are worth 30s. per fathom, and has sampled 129 tons for two months. Wheal Kitty (St. Agnes), 7½ to 7¾; the 54 east is worth 18s. per fathom; the new shaft, 22s. per fathom; in the back, 15s. per fathom; the 44 east, 16s. per fathom; the 34 east, 20s. per fathom; the lode below the level, 20s. per fathom. North Buller, 8 to 9; the mine has improved; in the 60 a lode has been cut, worth 1 ton per fm. North Croft, 4½ to 4½, and the mine is improving; North Dolcoath, 2 to 2½. North Treskerby, 3½ to 4½; New Wheal Martha, 3 to 3½. Great Wheal Busy is now working at a profit, and the mine is considerably improved; the 130 east is valued at 45s. per fm. for tin; the 130 west, 25s. per fm.; the 130, east of Offord's, 25s. per fm.; the 110 east, 15s. per fm.; Trevenning's winze, 25s. per fm.; Michell's winze, 35s. per fm. Wheal Edward, 2½ to 2½; the lode in the 81 west is worth 3 tons per fm.; the 50 west, 5 tons per fm.; the 50 east, on the new south lode, 4 tons per fm.; the rise, 5 to 6 tons per fm.; they have sampled, for two months, 234 tons of good quality ore. North Robert, 15s. to 17s. 6d. At Kelly Bray the mine continues to look well, and making a small profit. Great Retallack, 6s. to 7s.; Providence Mines, 41 to 42; Redmoor, 3s. to 4s.; Rosewarne United, 14 to 24; Sithney Carnmeal, 5s. to 5½; South Bassett, 6s. to 7; South Caradon, 41 to 42; Stray Park, 3½ to 36½; Tincroft, 21 to 2

soon amount to a sum far exceeding the original value of the estate. The purchase-money has been fixed at 16,000*l.*, of which 7000*l.* is to be in paid-up shares. The vendors bear all expenses up to the date of registration.

The West Polbreen Tin Mining Company, with a capital of 6000*l.*, in shares of 1*l.* each, has issued its prospectus, which we publish, *in extenso*, in another column of this day's Journal. The sett is situated in the parish of St. Agnes, Cornwall, and contains no less than 13 champion lodes; it is held from the Duchy at a minimum rental of 20*t.*, merging into a royalty of 1-15*t.* Capt. Wm. Paul, late of Tincroft, reports that there cannot be two opinians with practical miners as to the very probable results in West Polbreen. Capt. John Davies, M.E., knows no other sett in the district likely to be so remunerative for the capital to be employed. Capt. Richard Davies states that the appearance of the mine throughout is very encouraging, much better than he had anticipated. Capt. John Nancarrow has a high opinion of the sett. Capt. James Evans considers that if the mine be properly developed it will pay well, and Capt. James Crase recommends it as a good investment.

The Palleg Anthracite Colliery Company has been formed for the purpose of developing the colliery of the same name, situated in the Twrch Valley, about 14 miles from Swansea Docks, with which port it is in direct communication by the Swansea Vale Railway. The veins of coal, which are six in number, and vary from 2 ft. to 6 ft. in thickness, are calculated to contain upwards of 1,500,000 tons, and the ironstone vein will give nearly 400,000 tons. The coal is an anthracite of superior quality, and there is, according to the above estimate a supply of 100 tons a day for 50 years. The coal has been assayed by Mr. W. Herapath, of Bristol, who reports it to contain 88.7 per cent. of solid carbon. The property has been carefully inspected and reported upon by Mr. Joshua Richardson, M.L.C.E., who concludes an elaborate report by observing that the colliery possesses all the requisite elements for a successful enterprise. The capital has been fixed at 20,000*l.*, in shares of 4*t.* each, and the purchase-money has been fixed at 8000*l.*, which is less than Mr. Richardson's estimate.

At Camborne Ticketing, on Thursday, 3084 tons of ore were sold, realising 16,658*l.* 19*s.* 6*d.* The particulars of the sale were:—Average standard, 116*t.* 15*s.*; average produce, 7*t.*; average price per ton, 57*s.* 8*d.*; quantity of fine copper, 215 tons 6*cwt.* The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
June 4.....	3224	£116 3 0	65	£75 5 0	
" 11	2233	116 11 6	75	75 1 0	
" 18	4783	116 11 0	55	4 6	72 16 0
" 25	2667	116 2 0	75	5 9 0	75 1 0
" 2.....	3084	116 15 0	7	5 8 0	77 5 0

Compared with last week's sale, the advance has been in the standard 2*t.* 5*s.*, and in the price per ton of ore about 3*s.* 6*d.* Compared with the corresponding sale of last month, the advance has been to about the same extent.

At the Swansea Ticketing, on Tuesday, 2747 tons of copper ore were sold, realising 31,083*l.* 9*s.* 6*d.* The particulars of the sale were:—Average standard, 99*t.* 2*s.*; average produce, 13 11-16; average price per ton, 117*s.* 6*d.*; quantity of fine copper, 376 tons. The particulars of the sales during the past month have been:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
May 26.....	2610	£93 0 0	16	£12 13 0	£78 2 0
June 16.....	1980	98 11 6	13 7-16	10 14 6	79 18 0
June 30.....	2747	99 2 0	13 11-16	11 6 0	28 11 0

Compared with the last sale, the advance has been in the standard 2*t.* 10*s.*, and in the price per ton of ore about 6*s.* 6*d.* Compared with the corresponding sale of last month, the advance has been in the standard 4*t.*, and in the price per ton of ore about 10*s.* Of the 2747 tons of ore sold on Tuesday, 1425 tons were British ores, which gave an average produce of 9*t.*, and sold at an average standard of 104*t.* 13*s.*=72 16*s.* 6*d.* per ton of ore; the remaining 1322 tons were foreign ores, which gave an average produce of 18 7-16, and sold at an average standard of 96*t.* 1*s.* 6*d.*=15*t.* 9*s.* per ton of ore. On July 7 there will be offered for sale 2060 tons, from Chili, Cuba, Berehaven, Cobre, Seville, Holyford, and Australia.

At the East Pool Mine meeting, on June 29, the accounts for May and June showed a credit balance of 835*l.* 0*s.* 7*d.* A dividend of 640*l.* (5*s.* per share) was declared, carrying forward 561*l.* 0*s.* 7*d.* The profit on the two months' working was 653*l.* 12*s.* 5*d.* Captain W. S. Garby (manager), N. Tamblin, and J. Maynard reported on the mine.

At the Cwm Erfin Mining Company meeting, on June 19, a dividend of 1*s.* per share was declared. The mine is looking well.

At the Pendene Consols Mine meeting, on Tuesday (Mr. W. Bawden in the chair), the accounts showed a loss upon the two months (April and May) of 521*t.* 19*s.* 5*d.* The assets exceeded the liabilities by 715*t.* 7*s.* 3*d.* The report of the agent (Capt. Warren) was read, as was also a letter from Mr. White, the purser, which stated that the falling off in the amount was owing to the water-stamps and the tin-staff being hardly of so good a quality. He had gone carefully into the value of stock of tin at the surface, and he estimated it at 7000 sacks, worth 5*s.* per sack; calculating the tin at 60*s.* per ton, the total value would be 1050*l.* The engine-house was being erected as fast as possible, and in one month from the present time it would be ready for the machinery. The Chairman explained that the ground in the S2 north had changed, and the captain believed it was more congenial for mineral than it had been for a considerable distance. In the N2 there were 25*fms.* of ground, worth upon an average 50*s.* per *fm.*; the whole of that was untouched. The secretary, in answer to a question, stated that the engine was provided with two additional axles, so that at any time there could be added another 32 heads of stamps. The report was received and adopted, and the accounts passed and allowed. The committee of management were re-elected. A vote of thanks to the Chairman terminated the proceedings.

At the Rosewarne Consols Mine meeting, on Tuesday (Mr. E. J. Wilson in the chair), the accounts showed a debit balance of 1298*l.* 19*s.* 4*d.* A call of 6*s.* per share was made. Details in another column.

At Wheal Emma general meeting, on Wednesday (Mr. W. P. Paul in the chair), the accounts showed a balance of assets over liabilities of 560*l.* 14*s.* 10*d.* The captain's report was considered very favourable, and the prospects of the mine, especially in the western part, which is of the greatest importance, are much improved.

At Wheal Crofty meeting, on Wednesday (Mr. F. Wilson in the chair), a call of 7*s.* per share was made. Details in another column.

At the Fowey Consols Mine meeting, on June 23, the accounts for four months ending April showed a loss of 397*l.* 1*s.* 6*d.*, which, deducted from the previous credit balance, left a balance of 942*l.* 19*s.* to credit of next account.

At East Providence Mine meeting, on June 23, the accounts showed a credit balance of 24*t.* 10*s.* 4*d.* A call of 2*s.* per share was made. Messrs. James and Thomas Holloway are now joint purasers of the mine, at 6*s.* per month. Capt. T. Uren reported on the mine. He recommends "the sinking a new shaft on the floor, west of Boorman's, for ventilation, and to facilitate future operations; about seven months will bring it down to the 60. As most of the deposits of tin in the Providence Mines abound about this floor, and our rich lode in the 60 west will soon form a junction with it, I have no doubt good results will be met with here. I would also recommend that Boorman's shaft, below the 70, be suspended for the present, until the new shaft shall be communicated with the 60, then the mine will be thoroughly ventilated, and good returns will be made. The number of men employed is 34 underground, 1 smith, 1 striker, and 1 splicer; at the stamps, 1 man, 1 boy, and 1 girl."

At the Carnforth Mines meeting, on June 23, the accounts showed a debit balance of 803*l.* 8*s.* 11*d.* A call of 5*s.* per share was made. Messrs. Berryman and Davy were appointed surgeons of the mine, in place of the late Mr. Conch. Capt. John Wallis reported on the mine:—"We are putting in skip-road in the Nogger engine-shaft, and shall shortly cut a trip-plat, and drive east and west of the shaft. The levels open up ground such as in the shaft we shall break more tin in the next quarter than the past. Our tribute pitches are looking just as they were at the last meeting."

At Furze Hill Wood Consols Mines meeting, on June 25, the accounts showed a credit balance of 828*l.* 17*s.* 11*d.* A call of 3*s.* per share was made. The arrears of calls were reduced to 60*l.* Capt. Thos. Gregory reported on the mine:—"The general character of the ground is inexpensive for working, and we have a full supply of machinery for the development of the mine. I have great confidence, now we have got below the old workings, that the 40 will develop something of importance. I would, therefore, advise that the same active tutwork operations be continued, and thus lay open the mine as fast as possible."

At the Dale Mine meeting, on June 28 (Mr. J. Proctor in the chair), the accounts made up to March 31 showed a balance of assets of 349*l.* 0*s.* 7*d.* A statement of receipts and expenditure for the nine months ending with costs for March showed a balance at the bankers of 103*l.* 1*s.* 3*d.* The report of the agent was read. The accounts and report having been received and adopted, the meeting was made special, when it was unanimously resolved that the capital of the company should be increased from 30,000*l.*, to 35,000*l.* The directors were authorised to issue 5000 new shares of 1*s.* each, at a discount of 10*s.* per share, such shares to be offered ratably to the present shareholders; and in the event of any of the shares not being taken up by them, such shares to be disposed of by the directors to other applicants. A vote of thanks was passed to the Chairman and directors for their careful management of the company's affairs; the meeting expressed its confidence in Capt. Ninnes, and tendered its thanks to him for his zealous attention to the company's interests.

At the Okel Tor Mine half-yearly meeting, on June 25 (Mr. James M. Thistleton in the chair), the accounts for the last six months, after being audited, were passed, showing a debit balance of 327*l.* 17*s.* 7*d.* The present state of the mine was deemed very satisfactory, now that the eastern ends were well ventilated, and the boilers in place; and it was considered that with a little better standard the large reserves of copper ore could be excavated at a remunerative profit; besides this, there was a great improvement in the quality now apparent in the eastern ends and in the bottom of the 80 fathom level. In consequence of the latter, it was resolved to sink the engine-shaft as soon as possible.

At the East India Coal Company meeting, on Monday (Mr. H. Haymen in the chair), it was stated that the raisings of coal had considerably increased. The railway has been opened to the company's Topsoil Colliery, and the directors are assured from Calcutta that it only requires additional working capital to make the company pay good dividends. Details in another column.

At a meeting of the allotees of debentures of the Wheal Ellen (South Australia) Mining Company, held at the offices of the company, on Thursday, Sir Samuel Cunard, Bart., Messrs. T. J. Miller, M.P., and Wm. Ferguson, Chairman of the company, were elected trustees for the debenture holders.

The Capula Silver Mining Company have just received some specimens of very rich silver ore from their mines in Mexico. The manager speaks encouragingly of the position and prospects of the property, and states that a more settled condition of the politics of the country may now be anticipated.

The following, dated Halifax, Nova Scotia, refers to the Nova Scotia gold yield, and is from a correspondence which is reproduced in the *Canadian News* of this day:—"It is said that the richest gold-bearing vein of quartz yet discovered in the province has been opened on the claims of the Nova Scotia Gold Crushing and Amalgamating Company, at Sherbrooke. This vein, when first worked in March last, was only 1*in.* thick at the surface, but so rich that 300 lbs. of quartz, taken from a shaft of 5 ft. in depth, yielded 5 ozs. 13 dwt. of gold. But this yield has since been exceeded. The agent, in his return for April, reports that the last 10 feet yielded 9 ozs. 6 dwt. 9 grs. of gold, equivalent to 90 ozs. per ton. The lead, though small, increases in thickness, and is worked downward, and pays in the shaft, on an average, above 100 per cent. over the working expenses.

BOSTON, JUNE 15.—There have been cargo sales of Pictou coal at \$7 and Sydney at \$6 75 per ton. Anthracite has been in retail demand at \$9 50 per ton. Pig-iron is in moderate demand, with sales of Scotch, Gartshie, and other brands, No. 1, at \$39 and \$40; and American, No. 1, at \$38 and \$40 per ton, cash and four months. Bar-iron is in moderate demand at previous prices. Russia sheet-iron is dull, and prices nominal.

NEW YORK, JUNE 17.—The supply of foreign coal is altogether inadequate to the demand, and prices of gas have an upward tendency; we hear of sales of 500 tons Newcastle gas and 210 tons Sidney on private terms. Domestic is in brisk demand, and is firm at \$7 and \$8 per ton from yard.

NEWCASTLE, JULY 2.—The market this week has been quiet for local mines, but a fair enquiry has been experienced for West Chirton, Chirton, and East Barn Brae shares, and a small lot of Nether Heath shares have changed hands at advanced prices. Harwood continues to look well.—EDWARD BREWIS.

LEEDS, JULY 2.—In mining shares there has been more activity manifested, and a fair amount of business has been transacted, but with little variation in prices.—JOHN GLEDHILL AND CO.

APPLETREEWICK LEAD MINING COMPANY.

SIR,—In reply to a paragraph in last week's Journal, signed "John Gledhill and Co." I beg to state that there was not any meeting of the committee of this mine at my office on the 11th inst., as stated by the Messrs. Gledhill, nor has there ever been a meeting of the committee (there are no directors) at my office on any previous occasion whatever; and, therefore, what the Messrs. Gledhill state as "facts" are not facts. I also regret to say that there is no "forthcoming dividend" of this productive mine.

P. BLACKBURN, Sec.

COAL MARKET.—On Monday, the tone of the market for household coal was rather firmer, only 25 ships having arrived, and last prices were in all cases supported. Hartley's were scarce, and obtained an advance of 3*d.* per ton. Manufacturers' steady, at previous quotations. Best house coal, 16*t.* to 17*s.*; seconds, 14*s.* to 15*t.*; Hartley's, 14*s.* 3*d.* to 15*t.*; Manufacturers', 13*s.* to 15*t.* per ton.—On Wednesday, the arrivals of 102 fresh ships gave a large supply of all descriptions of coal. Household sorts supported Monday's prices, but Hartley's submitted to a reduction of 3*d.* per ton. Manufacturers' without alteration.—On Friday, only 27 ships arriving, the tone of the market for house coal was firmer, and a partial advance of 3*d.* per ton was realised. Hartley's and manufacturers' steady at last prices. Hetton Wallsend, 17*s.* 3*d.*; South Hetton Wallsend, 17*s.*; Haswell Wallsend, 16*s.* 9*d.*; Lambton Wallsend, 16*s.* 6*d.*; Stewart's Wallsend, 16*s.* 6*d.*; Eden Main, 14*s.* 6*d.*; South Kelloe Wallsend, 14*s.* 6*d.*; Shincliffe Wallsend, 14*s.*; Davison's West Hartley, 15*s.*; West Hartley, 15*s.*; Lambert's West Hartley, 14*s.* 9*d.*

EXPORTS OF COAL.—By the Monthly Circular of Messrs. Laird, Liverpool, we learn that the quantities of coal exported during May was 572,982 tons, against 681,646 tons in the corresponding month of 1862, showing a decrease of 108,664 tons. The particulars are—From the Northern ports, 311,010 tons; Yorkshire, 23,411 tons; Liverpool, 30,499 tons; Severn ports, 165,437 tons; and Scotch, 42,625 tons. The increase was—Severn ports, 16,064 tons; Scotch, 197 tons. The decrease was—Northern ports, 96,793 tons; Yorkshire, 2758 tons; Liverpool, 25,374 tons.—Total exports, Jan. to May, 2,837,693 tons, against 3,020,691 tons in 1862, showing a decrease of 182,988 tons.

LIVERPOOL COAL TRADE.—From the Coal Circular of Messrs. Platt we learn that the quantity of Cannel, coal, coke, and patent fuel shipped at Liverpool in June was 37,917 tons, and in the corresponding month of last year 50,285 tons, showing a decrease last month of 12,368 tons. The total shipments from January to June were 248,294 tons; same period of last year, 288,664 tons—decrease this year, 40,370 tons. The exports coastwise during June were 8991 tons; same month last year, 6825 tons—increase last month, 2166 tons. Total exports coastwise from January to June, 41,799 tons; last year, 32,639 tons—increase, 9160 tons.

GREAT WHEEL BUSY.—In April last, the non-paying part of this property was divided from the United Mines, and is now working under the name of Boscombe Mine. The result to the former is monthly profits, and had the adventurers adopted this course three years back Busy proper would have been in the Dividend List. Great Wheel Busy's monthly returns are now about 2400*l.* against a cost of 2250*l.* to 2300*l.*, but the mine has not yet set the rise in the price of tin and copper, or the returns of tin not yet much increased from the important discovery in the bottom level—the 30. The tin lode is valued in three places at 45*s.*, 30*s.*, and 25*s.* per fathom, and this ran of tin has already been discovered 30 fathoms in length, and the engine-shaft sinking close home to the discovery. The copper part is likewise looking better; the 110 end is worth 15*s.* per fathom; Trevening's, 25*s.* per fathom; Nicholls's winze, 25*s.* per fathom; and at the western part of the mine they have a lode at the 50 fm. level, 15 feet wide, producing some of the finest specimens of copper ore to be seen in the country. From the composition of this splendid lode, it seems quite certain the level is running over an enormous deposit of rich copper ore. The agents have determined to sink a winze below the level, and little doubt remains but this operation will lead to a good course of ore. This mine will soon take a prominent position in the market.

CALS NOT "PAYABLE" THOUGH "DUE."—This question was argued before Mr. Justice Mellor, in re the Inns of Court Hotel Company, upon a rule nisi granted by the Court of Queen's Bench for a mandamus to the company to register a transfer of shares made by a shareholder after a call had been made by the directors. It was now contended on the part of the company, that if the question in this case should be decided against them, it would be impossible to enforce a call, for the shareholder might transfer after the call was made, and then it could not be recovered from the transfer, because of the transfer; nor from the transferee, because he was not a shareholder when the call was made. On the other hand, it was urged that if a transfer could not be made before a call is payable, a company might keep a shareholder for ever, by appointing successive calls to be made at long intervals. Mr. Justice Mellor held that the call made in this case by the company when their exigencies did not require it did not make the shareholder "indebted" to them; and that the call was not in fact "payable" within the meaning of the Act.

LIABILITY OF PROMOTERS.—In re the Great Northern and Midland Coal Company, five promoters of the company agreed by resolution to take 100 shares each, and act as directors; they afterwards subscribed the Memorandum of Association for 21 shares each, and signed the Articles of Association, which provided that the names of the first directors should be determined by the subscribers of the memorandum, that until the appointment of directors the subscribers should be deemed to be directors, and that no shareholder should be entitled to be a director unless he held at least 100 shares; no directors were appointed, and the company was ordered to be wound up. The Lords Justices held that the five promoters were rightly placed on the list of contributors for 100 shares each. Lord Justice Turner said the promoters were bound to have appointed directors, who would have had to qualify themselves by taking 100 shares. Having omitted to make any appointment, they must in equity be deemed to have appointed themselves, and so make themselves liable.

TRANSFER OF SHARES AFTER CALLS.—A question similar to that which arose in re the Inns of Court Hotel Company, of which we give a notice, has been decided by Vice-Chancellor Kindersley, in re the British Provident Life and Fire Assurance Company; and the Vice-Chancellor held that were a shareholder after a call is made, but before the day fixed for payment, transfers his shares, on the construction of the 5th section of the 7 and 8 Vic. c. 110, such

THE WEST POLBRENN TIN MINING COMPANY

(LIMITED), ST. AGNES, CORNWALL.

Incorporated under the Companies Act, 1862.

Capital £5000, in shares of £1 each.

Deposit on application 5s., and 5s. on allotment. No further calls to be made

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W. C. PAUL, Esq., 79, Queen's-road, Bayswater, London.

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SOLICITORS—Messrs. Walter and Kirby, 2, Duke-street, Adelphi, London.

AUDITOR—Charles Warwick, Esq., 25, Bucklersbury, London, E.C.

SECRETARY—Mr. T. Cartwheel.

OFFICES—12, BUCKLERSBURY, CITY.

This company is established for the purchase and working the extensive and valuable

rich tin districts in that country.

The sett is bounded on the west by Wheal Charlotte, on the north by Wheal Friendly, Wheal Trevavasne, Polberro, and other celebrated tin mines, and on the east by Polbrenn.

It is traversed by the productive lodes by Polbrenn, Wheal Kitty, and the im-

portant mines, and parallel with the enormously productive lodes of Polberro and other

rich mines of the district.

In this sett are no less than thirteen champion lodes, all of which have produced large

quantities of tin, and give evidence of a highly mineralized property. A fine cross-

course is in immediate proximity to that part proposed to be opened up, which can be

rendered advantageous for cross-cutting to the various lodes.

A shaft has already been sunk 40 fms. deep, which communicates with an adit driven

on the course of one of the lodes, and which has been extended about 50 fms. into the

sett from the eastern boundary. In this adit, for about 30 fms. in length, the lode has

been taken away on tribute, the excavations even reaching the surface.

By extending the adit, which is at present highly mineralised, and by cross-cutting

to the next lode, this mine will be self-supporting in a very short time, and by develop-

ing the various lodes at the adit level great profits will, in all probability, be made.

This property has been inspected by practical mine agents of the district, whose re-

ports (which are annexed) fully warrant the directors in anticipating most satisfactory

results, the partial development recently made, being even more productive for tin than

the expectations of the present proprietors led them to anticipate.

The sett is held under lease for twenty-one years from His Royal Highness the Prince

of Wales, as Duke of Cornwall, at a minimum rent of £20 per annum, to merge into the

royalty of one-fifteenth of all the tin sold prior to the erection of an engine, and one-

twentieth afterwards.

The capital of the company will consist of £8000, in 6000 shares, of £1 each. Depo-

sit, 5s. per share on application, and 5s. per share on allotment. No further calls to be made

for twelve months. The conditions of purchase of this valuable property are

£3200 in fully paid-up shares, thus proving the vendor's confidence in the success of the

undertaking.

The company having been registered with limited liability, no shareholder can, under

any circumstances be made responsible for a greater amount than that of the shares to

which he subscribes.

There are no special articles of association, Table A under the Companies Act, 1862,

having been adopted in its entirety, except Clause 37, which has been altered so as to

ensure the attendance of a sufficient number of shareholders to enable business to be

transacted at the meetings of the company.

A considerable portion of this capital has already been subscribed, and the directors

will proceed to allot the shares as soon as they deem the requisite number applied for.

Some fine specimens of the ore may be seen at the offices of the company.

Prospectuses, plans, forms of application for shares, and any other information may be

obtained of the secretary, at the offices.

REPORTS.

Carthow Cottage, Pool, June 2, 1863.—I have carefully examined the above mine, both at surface and underground, and I have thought of its contiguity to Polbren Consols to the east, which I used to visit many years since, when the price of black tin was only £36 per ton, and now the same quality tin will fetch about double that sum per ton. The lodes, strata, and quality of the tin being the same in appearance in both mines, similar results may be fairly calculated on—i.e., that West Polbren will become a good mine. Polbren Consols having been worked very extensively for many years, and having a steam-engine with all its retinue of costs to contend with, cannot compete with you as to the cost per ton to send tin to the market. That the locality is good, no one can dispute; the number of lodes known to exist are several, and their being so contiguous to each other, and having two good cross-courses on which cross-cuts can be extended to intersect the whole of the lodes, and from which levels can be extended to the next lode (or the most productive of them) are advantages very rarely to be met with, and strongly recommend a sufficient capital to lay open ground expeditiously on the lode now being extended on west, and to extend the cross-cut north to intersect Dorcas lode; these appear to be the two main objects for the present. I need not go over the same ground as other agents who have preceded me in their inspections, I will only say I know the men, and believe them to be of sterling principle and of great experience, and in addition to what I have said, I beg to confirm their reports; indeed there cannot be two opinions with practical miners as to the very probable results in West Polbren.

WILLIAM PAUL, late of Tincrow.

St. Agnes, Cornwall, Feb. 3, 1863.—In compliance with your request, I send you my report of West Polbren Mine. This tin mine is situated in one of the most celebrated tin-producing parishes in Cornwall. From time immemorial St. Agnes has continued to yield immense quantities of tin; and even now the inhabitants can boast of a Wheal Trevavasne, Wheal Kitty, Polberro and Polbren, &c., all of which are giving good profits. West Polbren adjoins and abuts the above mines on the west; and the various lodes of this mine are the same lodes as those now yielding dividends in the mines adjoining. The stratum is precisely the same as that of every productive mine of the district, being a buff killas, full of threads or strings of tin. In this mine a shaft has been sunk from surface to the deep adit, called Polbren adit, which is about 40 fms. from surface. This adit has been extended into the sett some 50 fms. on one of the lodes, which has been so productive for the first, for 30 fms. in length, the whole of the lode has been taken away from the adit to the surface. In the forepart of the adit the lode is of great promise, and is producing good saving work for tin. About 20 fms. north of this lode is the celebrated Dorcas lode; and a cross-cut is driven about 10 fms. towards it, leaving about 10 fms. to intersect the same; when cut and opened upon good results are certain. Some 50 fms. west of the present workings is a cross-course of some magnitude. I would, therefore, suggest the propriety of first cross-cutting to the Dorcas lode, and then to drive west on the lode already opened, and also on the latter until the cross-course is being reached. Then communicate to those levels with a shaft, for ventilation, &c. This done, you will have some thousands of fathoms of tribute ground opened up, high and dry; which will not only make the mine self-supporting, but will, no doubt, result in good lasting dividends. By looking at the map of this mine, you will see that the sett is very extensive on the course of the lodes, and that there are no less than 13 champion lodes worthy of development, which can be done by cross-cutting on the great cross-course, very inexpensively. In conclusion, I beg to remark that by opening up the mine as above, on a scale worthy of enterprise, I know of no other sett in the district likely to be so remunerative for the capital to be employed as the West Polbren.

JOHN DAVIES, M.E.

West Polbren, St. Agnes.—Since commencing operations at this mine we have erected a whin, 11-ft. cage, shaft tackle, fixed 40 fms. of ladders, and divided and cased the shaft down. We have drawn to surface some of the old stuff, and in doing so found some good stones of tin; this will pay for stamping. We have also cleared several fathoms westward in the deep adit, and got into the end. The lode is of a very promising character, and produces good work for tin. In driving this level westward we shall be nearing the cross-course; we may, therefore, reasonably expect an improvement in the lode. The stratum is of the right sort for tin. On clearing out the old stumps we discovered a level about 7 or 8 fms. above the adit level, driven westward on the course of the lode, leaving a back some 90 fathoms in length. We think this ground stands in whole as high as the surface. The lode in this level is thin for the whole length, and in the same ground there are rich branches of tin. From this place we have broken a good pile of timber, and are daily breaking more. I may safely say that this back will pay well for taking away. The appearance of the mine throughout is very encouraging, much better than I had anticipated. I would further add that Wheal Trevavasne, a sett close to our north boundary, is worked in the same way you propose to work this mine—viz., without steam-power, and has given to the adventurers upwards of £150,000 profit, and I see no reason why West Polbren should not be equally productive and profitable.

R.D. DAVIES.

West Polbren, St. Agnes.—All that has been said and written respecting this mine has been fully borne out, for already we have sold about £80 worth of tin, and I estimate about £80 worth more on the mine now broken. We have not driven a fathom in the end, so that nearly all the tin has come from the backs above the adit referred to in my former report. However, to work the mine properly you must push forward the adit west on the course of the lode, to meet the cross-course, and drive the cross-cut about 10 fms. further north, to intersect Dorcas lode. This done, no doubt, the mine would be self-supporting almost immediately, and in a very short time West Polbren cannot fail to be on the dividend-paying list.

R.D. DAVIES.

St. Ives Consols.—West Polbren Mine is situated in the parish of St. Agnes, Cornwall, near the Beacon, on the south-east. Around the base of this hill large quantities of tin have been raised from time immemorial. The sett is large; the stratum killas. The well-known Polbren Consols and Polbren Mine, now very productive, adjoins it on the east. The ground is traversed by several east and west lodes, and all the lodes in Polbren run through it. On one of these an adit, 40 fms. deep, is driven from the east boundary 50 fms. west. There is a shaft down on the adit near the boundary. The ground for half the distance driven has been taken away from adit to surface, and has evidently paid well. It is worked in some places to a greater length. There is but little done to explore the other parts of the sett. The surface rises westward, and the adit would be in some places from 50 to 60 fms. deep. There is a cross-course 40 fms. west of the adit end, about which the lode will, in all probability, be very productive; and one principal point is to drive the adit west on the lode. Another is to drive a cross-cut north, to intersect several lodes which are at no great distance. The principal of these (Dorcas lode, now richest in Polbren) is probably within 20 fms., and towards this a cross-cut is already driven 10 fms. The cost of driving would not exceed £5 per fathom, and the ground is in all respects congenial for tin. As the lode already opened on has been productive, the one just before the cross-cut may be expected, from its size, position, and yield eastward, to be more productive. This ground can be wrought very inexpensively, because a great deal can be done without a pumping-engine. This district has not only given great returns but great profits, and that in many cases at 30, 40, and 50 fms. deep. From long acquaintance with the neighbourhood and careful examination, as well as recent inspection, I have a high opinion of this sett, and think it will well repay a moderate outlay.

*JOHN NANCARROW,**Manager of St. Ives Consols.*

Port Isaac, St. Agnes, Cornwall.—According to your request, I have inspected West Polbren Mine, and beg to hand you my report and opinion of the same. This mine is situated in the parish of St. Agnes, in the county of Cornwall, which is one of the best tin districts of the country. It adjoins the celebrated Polbren Mine, Wheal Trevavasne, and Polbren Mines, all of which are well known for the immense profits they have made. West Polbren adjoins and is on the same lode as Polbren Mine, which is now working and making large returns of tin. There is an adit driven about 45 fathoms west of the whim-shaft, which is 40 fathoms below surface. There must have been a fine course of tin in the adit, as the back and bottom are taken away for upwards of 25 fathoms in length and height, and from the workings I judge the lodes must have been from 3 to 5 feet wide. I should think the old men could not have sunk more than 8 to 10 fathoms below the adit level on account of the water. There are

several other lodes in this mine north of the above lode, and it is my opinion that the spindid lode (known as Dorcas lode, in Polbren Mine), which produced so much tin in a former working, is standing in whole ground in your mine, about 20 fathoms north of the above adit level. This greatly enhances the value of your mine, and as there is a cross-cut a few fathoms west of the whim-shaft, driving about 10 fathoms, I should recommend you to drive this cross-cut and intersect the north lodes. In conclusion, I beg to say I have a good opinion of the mine, and can recommend it as a good investment.

JAMES CEASE,

North Jane Mine.—As desired I beg to hand you my opinion of this sett; it is extensive, and there are several lodes that traverse the whole length of the sett, which have been proved to be very productive. Also, there are two cross-courses, which is considered by all scientific men to be a great essential to the production of minerals; the stratum is quite congenial for tin, and being surrounded by several good tin mines—viz., Polberro, Trevavasne, Wheal Kitty, Polbren; and being bounded on the east by the latter, and on the same lodes, I consider this to be a good speculation. It can be worked at a small outlay, as there is a 40-fathom adit, and by cross-cutting north and south more lodes might be intersected. There has been tens of thousands of pounds worth of tin raised in this district above this level; at Polberro, for instance, one-half of their returns is from above the adit level. My firm opinion is, if this mine is properly developed, that it will pay well.

*JAMES EVANS,**Manager of North Jane Mine, near Truro.**A BERDOVEY SILVER-LEAD MINE, MERIONETH, WALES.*

This mine has recently been divided into 5000 shares (originally 700); 3500 are allotted to the present holders, and 1500 are offered to the public at £2 per share, £1 to be paid on application, and the remainder by calls of 10s. each, at intervals of three months, forming a working capital of £3000. This, it is considered, will be ample sufficient to enable the company to make large returns, and bring the mine into a dividend position.

Lead ore is now being raised nearly sufficient to meet the expenses of the mine, and with further capital the returns will be considerably increased.

There are two water wheels on the mine, and ample power and machinery for raising, dressing, &c., 200 tons of ore monthly.

Any further information can be obtained of the secretary, Mr. LAWS, 50, Threadneedle-street, London, to whom application can be made for the shares.

THE GREAT CADER IDRIS LEAD, COPPER, IRON MINING, AND SLATE COMPANY (LIMITED).

This company, being completely registered under the Joint-Stock Companies Act, 1862, with limited liability, no shareholder can, under any circumstances, be made responsible for a greater amount than the shares for which he subscribes.

Capital, £40,000, in 40,000 shares of £1 each; deposit 10s. per share.

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*(With power to add to their number).**BANKERS—The Hibernian Joint-Stock Banking Company, Dublin, and its branches.**The National Bank, Dublin and London, and its branches.**The National Bank of Liverpool (Limited), Liverpool.**SOLICITORS—Messrs. David and Thomas Fitzgerald, 20, St. Andrew-street, Dublin.**DIRECTORS.*

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CHIVERTON WHEAL ROSE SILVER-LEAD MINE,

ST. COLUMB, CORNWALL.—In 100 shares.

This valuable property has been granted by H.R.H. the Prince of Wales, for a term of 21 years, at a royalty of £1-15th, to be reduced to £1-18th, upon an engine being

Now ready, Second Edition, demy 8vo., cloth, illustrated by sixteen plates, price 18s. (forwarded free by the author on receipt of Post-office order).

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By DAVID KIRKALDY, 4, Curzon-street, Glasgow.

OPINIONS OF THE PRESS.

The work before us is a most important contribution to the literature of science, and should find a place among the works for every-day consultation in the libraries of all scientific men, and particularly of all in the least degree connected with the manufacture or employment of wrought-iron and steel.—*Mechanics' Magazine*, August 29, 1862.

This is a thoroughly painstaking, able, modest, and elaborate work, and one that makes a very valuable addition to the stock of engineering data.—*Practical Mechanics' Journal*, October 1, 1862.

So diverse, suggestive, and, above all, so trustworthy are the facts brought out by this enquiry, that few engineers, we are convinced, will neglect to make them the subject of early and careful study.—*Engineer*, July 25, 1862.

After the extracts that have been given, it is hardly necessary to say much in commendation of the work. Its author has done signal service to engineering science, and one that will prove indirectly of real benefit to our iron manufacture. Hitherto we have possessed no work on any one mechanical property of wrought-iron to approach the unpretending volume before us in the comprehensiveness and scientific arrangement of its experimental results.—*Civil Engineer and Architects' Journal*, April 1, 1863.

London: Hamilton, Adams, and Co.; Simpkin, Marshall, and Co.; C. Griffin and Co. New York: Scribner and Co. —Toronto: James Campbell. —Calcutta: Rosario & Co. —Melbourne: Geo. Robertson.

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London: Longman, Green, and Co., Paternoster-row.

Notices to Correspondents.

BISMUTH.—Can any of your readers inform me through the medium of the Journal—

1. The present market value of Bismuth?—2. The probable quantity produced from mines in the United Kingdom annually?—3. The quantity imported into England annually? One of my friends writes from South Australia that on a mine, called the Stanley, near the Yadanamutana Mine, a large deposit of Bismuth has been discovered, in combination with copper ore. The ore, on assay, yielded 73 per cent. of Bismuth, and 12 per cent. of copper. My correspondent wishes to know what effect the sending home of 500 tons of Bismuth metal would have upon the market. I have enquired of several of my mining friends, but, as yet, have not received anything like a definite answer. Some one of your readers who may understand the value and uses of the mineral will oblige by giving information on the subject.—A READER: *Kingston, Hants*, June 26.

VARIATION OF THE NEEDLE.—Would any correspondent kindly inform me the variation of the needle for 1863?—A MINER: *June 30*.

INVESTMENT OF CAPITAL—MINES AND SLATE QUARRIES.—As I think that the letter of "A Subscriber," in last week's Journal, applies to a company in which I am interested, I shall feel much obliged if you will insert this, in order that I may enter into correspondence with him on the subject, as I am of opinion the shareholders ought to look up sharply the directors in the said undertaking, in which an immense sum has already been expended, without any tangible results of any consequence. The directors are only at the present time employing ten men in developing the quarry. How is this? If they have not funds, why do they not call a meeting of the shareholders, state how they have spent the last call of 1s. per share, and if the cash has been spent, make another call, and thus prosecute with vigour the undertaking, until it either realises the value of the "mountain in labour," or the "mountain of slate," which was, according to the prospectus, to fill the shareholders' pockets with cash, instead of calls and reports.—H. HASTINGS, M.D.: 8, Cambray, Cheltenham, July 2.

NEW WHEEL MARSH.—It is but justice, I think, to the writer of the "Cornish Notes" to inform him that a rumour has obtained some degree of credibility to the effect that the remarks which he has published relative to New Wheel Marshes were obtained not from a personal inspection of the property, but from a certain person who calculated upon being appointed manager, and having been disappointed, rid himself of a large portion of his bite by supplying information adversely affecting the property in question. So far as I am individually concerned, I believe the rumour to be without foundation; but, seeing that it has been pretty freely circulated, it behoves the writer, no less than the agent who expected to be appointed manager, to come forward and refute the accuracy of such prejudicial statements.—FAIR PLAY: *July 2*.

It is a notorious fact that hitherto our knowledge of the tensile power of wrought-iron and steel has been of the crudest and most unsatisfactory character. * * * The book we cordially commend.—*Building News*, September 5, 1862.

The importance of this laborious volume is unquestionable.—*Builder*, Oct. 4, 1862.

The manner in which the work has been done, and the lucid way in which the results are recorded, reflect the highest credit upon the author, and we doubt not that his book will enjoy that large amount of patronage which it so well deserves.—*Mining Journal*, August 16, 1862.

Mr. Kirkaldy here presents us with a vast amount of information, arranged and classified in a very convenient manner for reference, * * * a careful perusal of which we commend to all practical men engaged in the useful employment of steel and iron, and to the scientific world in general.—*Artisan*, August 1, 1862.

The institution could not be too grateful to Mr. Kirkaldy for his labours; for he had collected a mass of facts which were of the highest value in a scientific and practical point of view.—*Proceedings of the Institution of Engineers in Scotland*, Nov. 18, 1862.

London: Hamilton, Adams, and Co.; Simpkin, Marshall, and Co.; C. Griffin and Co. New York: Scribner and Co. —Toronto: James Campbell. —Calcutta: Rosario & Co. —Melbourne: Geo. Robertson.

plates, 411,940*lb.* lead, 353,896*lb.* steel, 167,684*lb.* tin unwrought, 84,552*lb.* brass, and 35,174*lb.* zinc.

With these figures before us, it is impossible not to express our surprise at hearing a judge, an inferior one certainly, while presiding in Court, deprecating mining in strong terms, and recommending the public to have nothing to do with it in any shape. Had the case before him had reference to transactions in shares there would be nothing to say, but as it was solely in respect of legitimate mining, the comments were most uncalled for, and certainly not warranted by the facts which these monthly returns from the Government make known to the public. Let this simple fact speak for itself; the total declared value of the exports of the kingdom, taking the preceding figures, will be about 120,000,000*l.* for the year, of which 30,000,000*l.* will be represented by mining and its results.

The transactions in the precious metals were in favour of us on balance for the five months. The exports were 11,788,274*l.* and imports 12,135,439*l.* the former consisting of 7,036,320*l.* in gold and 4,751,958*l.* in silver, while the latter represented 7,716,327*l.* in gold and 4,419,112*l.* in silver. For the month the exports exceeded the imports, being 2,574,086*l.* shipped and 1,978,860*l.* received. During the five months we sent 4,579,454*l.* to Egypt, for India and China, and received 16,774*l.*; 2,851,218*l.* to France, against 579,829*l.*; 1,149,742*l.* to Hanse Towns, against 593,039*l.* 932,528*l.* to Russia, against 193,443*l.*; 816,201*l.* to Spain, against 5024*l.*; 848,118*l.* to Brazil, against 24,746*l.*; 504,086*l.* to Portugal, against 25,230*l.*; 117,216*l.* to Holland, against 40,789*l.*; 90,311*l.* to Malta, against 485*l.*; 50,808*l.* to Gibraltar, against 814*l.*; 54,690*l.* to British North America, against 14,287*l.* On the other hand, we received from Mexico 4,719,848*l.*, and sent 183,444*l.* from the United States 3,770,589*l.*, against 25,712*l.* from Australia 1,740,712*l.*, against 1212*l.* from Belgium 259,541*l.*, against 67,926*l.* from Turkey 98,543*l.*, against 10,007*l.*; and from the West Coast of Africa 36,724*l.*, against 29,721*l.* From British possessions in South Africa we imported 4704*l.*, without making any return in specie or bullion. With "other countries" the dealings are 25,879*l.* in exports and 3492*l.* in imports.

During the quarter ending June 30 the quantity of copper ore, the produce of mines in Cornwall and Devon, sold at the Cornish Ticketing, was 41,922 tons, which contained 2726 tons 19 cwt. of fine copper, and realised 19,885*l.* 3s., being equal to an average of 42*l.* 15*s.* per ton of ore, and 73*s.* per ton of copper in the ore. During the same period the British, colonial, and foreign ores sold at Swansea amounted to 14,087 tons, which contained 2012 tons 4 cwt. of fine copper, and realised 160,631*l.* 8*s.* 6*d.*, being equal to an average of 11*l.* 8*s.* 6*d.* per ton of ore, and 8*s.* per ton of copper in the ore. The average produce of the ore sold at the Cornwall Ticketing was 64*l.*, whilst that sold at Swansea gave an average produce of 14*l.* 5*s.* From this it will be seen that the aggregate sales by ticket were 56,009 tons of ore, containing 4739 tons 3 cwt. of fine copper, and realising 359,526*l.* 11*s.* 6*d.* The subjoined is a summary of the periodical sales at the Cornwall and Swansea Ticketings respectively:

The ore sold at the Cornish Ticketing was—

Date.	Standard.	Prod.	Price.	Tons.	Fine copper.	Amount.
April 2.	£116 19 0	63 <i>1/2</i>	£5 1 0	3251	217 9	£16,490 5 6
" 9.	116 15 0	6%	4 19 6	1875	123 2	9,210 1 6
" 23.	119 12 0	5%	4 5 0	4930	288 10	20,951 12 6
" 30.	113 2 0	6 <i>1/2</i</i>				

interfere with his trade. Now, the EMPEROR OF THE FRENCH had sufficient confidence in the people to leave the question of his worthiness to hold the eminent position he now occupies to their decision, and we cannot see any serious impediment to his adopting a similar course with respect to the Universal Exhibition of 1867. Let there be two intelligent workmen (engaged in the branch of industry in connection with which the awards are to be made) for each award or capitalist, and let no juror be appointed directly or indirectly interested in any exhibit. By this means we should have bodies of jurors in whom the exhibitors would have confidence, and with whose decision even the unsuccessful would be content.

Were such a course pursued we should have, for example, a puddler passing judgment on a pig of iron, a collier deciding what life-saving apparatus was most to be relied upon, and a dealer in textile fabrics recording the relative merits of the products of various manufacturers, and we opine that these decisions would be far more convincing to the general public than those which have hitherto been given, where an ironmaster, naturally prejudiced in favour of the iron for which it is his interest to obtain a market, a coalowner prejudiced against the use of any apparatus other than that actually in use, and a cotton manufacturer, naturally inclined to give undue preference to the goods produced in his immediate neighbourhood, have been the judges.

REPORT FROM NORTHUMBERLAND AND DURHAM.

JULY 2.—The Coal Trade continues as last reported. On the whole, it is certainly dull, although some of its branches a pretty good business is doing. The coking coal appears to suffer least from the general depression; and as the iron trade continues brisk, with a good prospect, a considerable quantity of manufacturing coal is got rid of within the district. A serious riot took place at Atherton Colliery, near Morpeth, on Monday night. A number of the men employed at the works have been on strike in consequence of a dispute respecting wages, and having been discharged they were joined by a number of men from the surrounding collieries; and thus reinforced commenced breaking the windows of the resident viewer and those of the men who had refused taking part with them in the strike. A great number of the county police have been required to put a stop to their riotous proceedings, but the men are far from being settled or satisfied. We have not as yet sufficient information to give a detailed account of the cause of the outbreak, but the men evidently consider themselves much aggrieved by the treatment they have received. Such occurrences are very rare in the district indeed—a long period has elapsed since anything of the kind occurred; it is, however, much to be deplored. No further disturbances of a serious nature are expected to take place.

The new shaft, which has been in course of sinking for some time at Coxbridge Colliery, is now fast approaching completion, only, we believe, about 100 feet remains to be passed until the coal will be reached. This shaft is for the purpose of "winning" the Low Main coal, or well-known steam coal of the central Northumberland coal field. This point is considerably further south than any winning which has yet been made to this valuable seam, which is of excellent quality here, having been already proved by boring—at any rate, it has not been worked as yet so far to the south and west. This winning will, therefore, considerably extend what is known as the "Hartley district;" and as the coal is of good quality and thickness, it will add much to the value of the Coxbridge Colliery, which is the property of Mr. Boyer.

A correspondent of the *Northern Daily Express* gives some interesting particulars respecting coal mining in New South Wales. The steamers running from Sydney to the Hunter are from the celebrated yard of Messrs. C. Mitchell and Co., of Walker, and the engines from the factory of Morrison and Co., of Gouveneur. There is a Wallasea coal, which, like the celebrated coal of that name on the Tyne, is considered the best, and eagerly purchased. The Minmi Coal Mines, employing 300 miners, are well worth a visit. The machine-shop, fitted with various kinds of planing, boring, and other machines, from the establishment of Messrs. Buxton and Co., of Leeds, will repay an inspection; and a descent of the shaft, 100 feet to the spacious workings, will convince the visitor that this is a property second to none even at home. With the present appliances 1000 tons of screened coal can be brought to bank per day. One fact deserves notice in connection with Australian mines—it is, that no inflammable gas or choke-damp has yet been met with. The miners work each with a small naked oil lamp hooked to his cap, and seem quite free from every apprehension of danger. The Minmi coals are shipped on the Hunter, about six miles from the pit, and the largest portion re-shipped in the Sydney market for Shanghai and other great Chinese and Indian ports, which supply a great number of steam-ships. During one of the miners' strikes lately, two men wandering about Lake Macquarie, a large sheet of salt water about 12 miles from Newcastle, discovered a seam of coal opening out to the very edge of the water. Of course, they kept it dark—purchased the land at the Government price—formed a company, and are now working magnificent coal, under the title of the Cardiff Coal Company. The opening of the drift is not 10 yards from the lake. Seams 15 feet thick are being worked, and the coal was pronounced to be of most excellent quality. Coal is sold in Sydney, of the best quality, at £15. 6d. per ton; and there is little doubt but competition will soon reduce it much lower. When it is said that a colonial dividend is easily paid, it will be understood that the coal business in New South Wales is at present very lucrative. Eight per cent. is a rate of interest easily procurable, and on good security, in Sydney.

REPORT FROM MONMOUTH AND SOUTH WALES.

JULY 2.—There is no material change to report in the state of the Iron Trade. The ironmasters are well off for orders, and at several works there are large contracts in hand on continental account. It is a well-known fact that Russian orders generally fall to the lot of this district, and for many years past the requirements of that extensive country have been large. At the present time there are three or four Russian specifications in course of execution, but the unsettled state of affairs as regards Poland, and the ominous signs of internal discontent in Russia proper, have interfered with the iron trade, and until these causes of uneasiness are removed a really substantial trade will not be done with Russia. In consequence of the strike in South Staffordshire, an increased quantity of puddled bars is being sent from Monmouthshire and South Wales to that country; and through this circumstance, and the general improvement evinced in the iron trade, the market quotations are firmly maintained. A second furnace has been put in blast at Cwmbran, by Messrs. Roper and Co., and the forge is to be started without delay by Messrs. Weston and Grice. The Gadlyns Iron Company have now their four furnaces in blast, and at Aberdare, Cyfarthfa, Dowlais, &c., the works are in regular employ. The late drought seriously interfered with a few of the works, more especially Dowlais, and it appears that had not a considerable fall of rain taken place several branches of the extensive establishment would have had to be stopped. Since then it appears that arrangements have been made with the Merthyr Water Company, by which, should such an event occur in future, a supply of water will be obtained from the water company. The Coal Trade remains without any important alteration to report. The coalmasters are doing a fair business, but the high freights and the low prices continue to restrict the trade, and materially reduce the profits.

The railway traffic returns of a district is a good criterion of the state of trade, and in this respect South Wales shows a decided improvement for the last six months. The following are the total receipts of the local railway companies from Jan. 1 to the second week in June, and the receipts for the corresponding period of last year:—

	1862.	1863.
Llanelli Railway and Dock	£ 12,934	£ 12,747
Monmouthshire Railway and Canal	59,267	58,571
Rhymney	22,029	18,571
Vale of Neath	47,616	50,963
Taff Vale	129,538	129,653

Another frightful colliery accident has just occurred in this district. On Friday morning last an explosion of gas took place at the Park Colliery, Baglan, near Briton Ferry, and out of the 14 men that were in the pit at the time only two escaped uninjured. Three of the hands, named Richard Evans, Thos. Griffiths, and Francis Jenkins, were killed on the spot, and the remaining nine were more or less injured. On Sunday afternoon Thomas Arnold, one of the nine, died from the effects of the burns received, and two others are, it appears, lying in a precarious state. Every possible attention has been paid to the sufferers by the medical gentlemen of the neighbourhood. Mr. Thomas Evans, the Government Inspector, and several of the proprietors, arrived at the colliery in a few hours after the accident, and a searching investigation is to be made as to the cause of the explosion. The pit has only recently commenced working, and the proprietors are Messrs. Edward Thomas, Son, and Co. There are about 150 hands generally employed, but, as already stated, through some fortunate circumstance only fourteen were down at the time of the accident. The inquiry was commenced on Saturday afternoon, and after an order had been given for the interment of the bodies the proceedings were adjourned. Monday next has been fixed for resuming the enquiry, but it is very probable that another adjournment will take place.

A rather important case to colliery owners was heard at the Carmarthen Petty Sessions, on Saturday last. Mr. Thos. Evans, Her Majesty's Inspector of Mines for this district, summoned Mr. Benjamin Jones, proprietor of the Gorsgoch Colliery, Llanarthney, for having neglected to give notice of an accident, resulting in personal injury, from gas explosion at his colliery, pursuant to the 23d and 24th Vict., c. 151, s. 19. Mr. George Thomas appeared in support of the information, and Mr. J. B. Jeffries for the defendant. Mr. Thomas briefly explained the circumstances of the case, and then called Mr. Thomas Evans, who said he was the Inspector of Mines for the district. He knew Gorsgoch Colliery, of which defendant admitted he was the owner. In consequence of information which he received, he wrote to the defendant and to the Secretary of State, and in obedience to the instructions of the latter, he had taken these proceedings. In the letter to the defendant he complained that he had not received notice of the accident at the colliery by gas explosion. He had called defendant's attention to the provisions of the Act on a previous occasion, in consequence of a similar accident at the colliery. He got notice of the accident seventeen days after it occurred. He had visited the colliery since, and found it in a bad state. Mr. Jeffries admitted that an accident had occurred at the col-

liery, and one man had received slight injury; but the defendant's agent deemed it so trifling that he did not think it came within the meaning of the Act, and, therefore, no notice was sent. The magistrates inflicted a penalty of 20*s.*, including costs. The defendant complained that it was a hard case that colliery proprietors residing at a distance should be obliged to send notice of an accident to the Government Inspector within 24 hours; and for six months of the year it would be impossible for him to do so. The magistrates said defendant ought to leave a competent person to act in his absence.

At the Bristol Bankruptcy Court, on Tuesday, W. Harris, Rydfield, came up for his last examination and order of discharge. By the consent of Mr. H. Brittan, the bankrupt, was allowed to pass his last examination. The order of discharge was adjourned by consent.

The Brecon, Merthyr, and Rumney Amalgamation Bill was finally passed on Friday last. This week the Lords Committee have sat on the proposed Dowlais branch of the West Midland, and the Bill is being vigorously opposed by the Brecon, Merthyr, and Rumney and other parties. There is no wish to throw the measure overboard, but the oppositionists claim facilities from the West Midland in return for the running powers granted to the latter over some of the lines in the locality. The Brecon, Merthyr, and Rumney Company oppose with the view of obtaining running powers over the Aberdare branch of the West Midland, and in this they are strongly supported by the chief interests concerned. If they should succeed, the freighters and the public generally will have the benefit of a shorter and more direct route to the Aberdare Valley, under the management of one company. The Swansons and Neath line is to be inspected to-day by the Government Inspector, and the opening it is expected will take place on July 14.

The arrivals at Swansea include—the Mary Blair, from Cherbourg, with 222 tons 1 cwt. of iron ore, for the Dowlais Iron Company; Fortuna, from Lisbon, with 80 tons of copper ore, for J. H. Schreder and Co., London; Gold, from Cherbourg, with 150 tons of iron ore, for the Dowlais Iron Company; Ernest Augustus, from St. Malo, with 117 tons of zinc ore, for Rowlands; Harold Harfager, from Kragero, with 120 tons of nickel ore in bulk, and 4 boxes of ditto, for H. Vivian; Chilian Packet, from Coquimbo, with 45 tons of copper unwrought, in pigs, and 289 tons of copper ore, for Chas. Lambert, 90 tons of cobalt ore, unenumerated, and 4 tons of silver ore, for Henry Bath and Sons; Duke of Northumberland, from Cuba, with 640 tons of copper ore, for the Cobre Mining Company.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

JULY 2.—The demand for Manufactured Iron is quite equal to the means of supply, but the gradual extension of the area of the puddler's strike, and the determined aspect which the men present, with the equally decided determination of the masters not to grant what they say they cannot yield without sacrificing their profits, and working at a loss, afford but little hope of the speedy termination of this unhappy and disastrous dispute. There is also an extensive strike of the nailmakers of south-east of Staffordshire, and the adjoining parts of Worcestershire, in opposition to a proposed reduction of wages. The proceedings in connection with the bankruptcy of Mr. Samuel Griffiths, of Wolverhampton, were yesterday again adjourned at the Birmingham Bankruptcy Court, as counsel asked for time not then filled, but an application had come in for the proceeding to be taken out of Court, on the ground that the creditors had come to an arrangement to that effect. It was, however, agreed to adjourn the meeting to July 21. The balance-sheet showed liabilities amounting to £6,744*s.*, of which nearly £6,000*s.* were secured. Omitting the bad debts, and assets applicable to the secured debts, there was a deficiency of £9,361*s.*. The realisation of the assets, however, which left this balance when deducted from the liabilities, was considered doubtful.

Another bank at Hereford—the Hereford City and County Bank—has stopped payment, making three in that city within a short period.

On the 23d ult., two men were ascending by a skip at a colliery at Donington Wood, Shropshire, belonging to the Littlehall Company, when the skip was raised too high by the engineman, and both were thrown out. One of them—Thos. Southall—was killed on the spot, his head was almost cut off, and his arms nearly torn from his body. The other—Wm. Lowe—had his leg broken, and his body much bruised. The result of an enquiry before a coroner's jury has been the committal of the engineman for trial on the charge of manslaughter.

At the adjourned inquest respecting the deaths caused by a recent boiler explosion at Bilston, previously noticed in the Journal, Mr. J. Holcroft, engineer, gave evidence respecting the appearance presented by the boiler. He said he was satisfied that there was plenty of water in the boiler at the time, nor did he think the plates over the fire had become red hot or weakened in any material degree. The only opinion he could form respecting the accident was that it arose from the pressure having from some means risen above that at which the boiler was ordinarily worked, and which was 30 lbs. to the square inch. With a view to avoid such explosions, Mr. Holcroft has suggested "that it would add greatly to the safety of steam-boilers, especially where a number are employed, and are heated by puddling and other furnaces, as in ironworks, if, in addition to the usual safety-valve, one of larger dimensions were placed on the steam-pipe as close as possible to the engine door, with an arrangement either by a screw or weight to ease the pressure of steam during stoppages. The engine driver should have strict orders whenever the engine stands to ease the valve, and as he must necessarily pass the door to go in or out of the engine-house, this would add very little to his labour. It is known that a great number of explosions occur during a stoppage of the engine, or soon after it has been put in motion, and as one reason for this is that the pressure on the boiler during the stoppage of the engine has a tendency more or less to accumulate above the safety-valve weight, although its diameter may be large, it is thought that a valve as proposed would meet this tendency, and would let off with less strain on the boilers the steam generated during stoppages of machinery."

Two colliers in the employ of Mr. W. H. Dawes pleaded guilty at the Dudley Police Court, on Monday, to having got out of a skip before it stopped. As they expressed their regret they were discharged with caution, on paying the costs.

REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

JULY 2.—Those engaged in the Iron and Coal Trades seem to think it is settled question that the period of dulness has not yet reached its climax. The American war is more than ever affecting the commercial industry of the country, with very little probability of an early change in the position of affairs. It is the general opinion in these counties that the ironmasters, at their preliminary meeting, came to a wise decision when they resolved not to alter their old rates, which have been in operation so long, though at the present price of manufactured iron the margin of profit is exceedingly small. There are enquiries for plates and rails for exportation, but merchants at home confine their orders for immediate requirements. Indeed, there is very little speculation, but a large amount of underselling going on with needy makers. Derbyshire pig-iron, which is now mixed with Northamptonshire ore, is mostly required by the ironmasters in the county, most of whom have a market for it at their own works. There is a declining tendency in the rates for Scotch pigs, and prices are, consequently, very unstable. We cannot look forward to any improvement in the Coal Trade until the next winter. The dulness of the two last seasons, coupled with the cotton famine, have induced a state of dulness which will require many months of good trade to revive. The real difficulty is to find a market for the produce. Coalmasters must necessarily find a sufficiency of work to keep their workpeople together, and thus they accumulate stock, and have a large amount of capital lying idle. We have had several failures, owing to the depression in the coal trade. The examination of Mr. Galloway, coalowner, Heath, will take place on Saturday at the Sheffield Bankruptcy Court. The bankrupt will be opposed by several creditors.

The Chesterfield and New Dunstan Colliery, as we intimated last week, has come to grief, and the creditors of the concern cannot get their money. This is the second company which has been started and which has met a similar fate. The royalties to be paid to the owner of the coal are heavy and compulsory, the minimum rent, which has to be paid whether the mine is worked or not, being very large; moreover, the pit is nearly $\frac{1}{2}$ mile from the railway station, and as the mine-rails have to be carted to the coal drops, an additional expense has to be incurred, which renders it very difficult to compete with those works which have rails running to the pit's mouth. Besides, joint-stock companies to be successful must be worked economically and cautiously. The Chesterfield and New Silkstone Company has spent more money than they contemplated—we do not mean imprudently, but we hear that the difficulties attendant upon "getting" the coal are such that fresh capital will have to be raised. This is what depresses the prosperity of joint-stock companies. The plant belonging to the North Derbyshire Mining Company is about to be offered for public competition, private negotiations having failed. The attempt, also, to raise a new company has not been successful, and now the property will have to be sold for what it will command in the market.

The following particulars will interest your readers, and is of some local importance. At the last sitting of the Academy of Sciences, M. Kuhmann continued his communications touching the preservation of building materials. He stated that when the water of mineral hydrates cannot be displaced except by a high temperature, or when the substances themselves are anhydrous, tar only penetrates into the fissures, but that in the case of fibrous or porous crystals, like those of aragonite, silicate, &c., the penetration is much more perfect. A topaz, or a piece of rock crystal, will then assume the colour of garnets. A specimen of opal kept for some time in boiling tar, assumed a smoky tint, exactly resembling a piece of opal from Mexico, belonging to the Museum of the School of Mines. Metallic oxides and binary compounds, as also carbonates, are reduced (decomposed) by boiling tar. M. Kuhmann having mentioned the preservation of certain parts of the walls of a chapel at Biarritz by black paint, M. Robinet said he had proposed that process thirteen years ago, and had called the attention of the city engineers to the extraordinary preservation of the inscriptions executed in black paint on the public monuments in 1792 and 1793. These inscriptions are white now, but still perfectly legible, neither the action of the atmosphere nor the scraping of the walls, periodically effected, having succeeded in effacing them.

A new Railway Signal has been placed on the Midland Railway, at Kegworth, Derbyshire. It consists of a large clock placed on the top of a column. Only a quarter of the clock is shown, which is formed of ground glass, with red figures, 0, 5, 10, 15, and has only one hand. Attached to the clock is a long rod connected with a trident about 16 ft. long, which lies along the inside of one of the rails. On the train passing over the trident it is depressed slightly by the wheel flange, and the clock hand is set at liberty, and is so adjusted by a counterpoise that it turns to the figure 0. Immediately the train has passed over, the hand begins again to mark the time up to 15 minutes, when it is stopped, thus indicating to the next train exactly how long, up to 15 minutes, the preceding train has passed the signal. The same clock works two faces—one for the up and one for the down line. The utility of the signal in preventing accidents from trains running into each other is obvious. The inventor is Mr. John King, lace manufacturer, Hinckley.

The applications for Letters Patent include Mr. John Griffiths, of Derby, manager of ironworks, for improvements in machinery for paddling iron and steel; Mr. R. Musset, of Coleford, metallurgist, for improvements in the manufacture of iron and steel; and Mr. Thomas Dunn, of the Windsor Bridge Ironworks, engineer, for improvements in the construction and maintenance of the permanent way of railways.

The ore sold by the Mill Dale Mine, on Friday last (pay-day), weighed 79 tons, at 12*s.*, 6*d.* per ton; this is more by 8 or 9 tons than was expected, thus showing the expectations of the shareholders to be more than realised. This quantity will be greatly increased every pay-day, when the shaft is 10 fathoms deeper, as the ground passed over in the bottom level is very rich. It is proposed to continue the sinking of the shaft 20 or 30 fathoms deeper; when this work is accomplished the mine will be one of the richest in the Peak of Derbyshire. The engine is almost completed; the pumps are on the mine, and will be ready for the engine to start in about three weeks. We would advise the shareholders to visit the mine; they will be highly pleased with their visit. The mining share market is very dull, but little business has been done.

GEOLOGISTS' ASSOCIATION.

At the meeting, on July 6, Mr. E. Charlesworth, F.G.S., will read a paper on "Ammonites," and Dr. Richardson will read a de-

scription of the Excursion to Dudley. The paper on Ammonites will be illustrated by a fine series of fossils, to be exhibited by Mr. J. F. Collingwood, F.G.S.

BRISTOL TRADE AND MINING SCHOOLS.—The closing lecture of the session was delivered at this school on Friday evening, by Mr. Handel Cossham, F.G.S., President of the Mining School, "On Mining as it was, as it is, and as it ought to be." Mr. L. Brough, Inspector of Mines, presided, and there was a large attendance. The lecturer commenced by tracing the progress of mining from the time when coal was worked by means of open drifts on the basset or exposed edges of the coal seams, and raised by reels similar to those used at cottage wells; after which, he adverted to the application of horsepower by means of gins, and to the introduction of steam as a medium of raising coal, and also to the adaptation of the latter power to pumping purposes. The lecturer showed that the various implements referred to had produced corresponding benefits to persons engaged in coal mining, thus proving the general principle that all mechanical implements tended to the social and commercial advancement of the men connected with the calling. In speaking of coal mining, "as it is," the lecturer first described the arrangements usually adopted, referring to the larger size of pits as at present sunk; to the importance—the necessity in fact—of their being all lined or walled with brick or stone; to the advantages derived from their being fitted with guides or conductors; and directed attention to the very splendid application of pumping-power to one of the principal collieries at Clay Cross, which he (the lecturer) had lately seen, where a cylinder 10 ft. diameter, and pump of 10 feet stroke, were worked by beam composed of wrought-iron, weighing over 30 tons, which threw out 220 millions of water every stroke, and was capable of raising 2000 gallons of water every minute, or 1,500,000 gallons in twelve hours. The lecturer then referred to the underground arrangements, to the introduction of gas into coal mines, and to the importance of the adoption of round ropes with conical drums for pits of great depth. The extent to which Government control ought to be exercised was discussed; and, in conclusion, the lecturer showed that the happiness, the comfort, and the improvement of the condition of the men engaged in mining was an important element connected with the prosperity of that branch of national industry. The Chairman in proposing a vote of thanks to Mr. Cossham, said the course of instruction at the Mining School was to be remodelled, after a plan by Mr. G. C. Greenwell, C.E.

MANCHESTER GEOLOGICAL SOCIETY.—The monthly meeting of members was held on Tuesday, Mr. J. Dickinson, the President, in the chair.—Mr. J. Plant read a paper on "The Effects produced on Rowley Rag by Heat." Mr. Plant gave an interesting history of the attempts that have been made from time to time to utilize the basin of Rowley, and he alluded to the experiments of Mr. Gregory Waitts, Sir James Hall, Mr. Adcock, and Mr. Chance, of Birmingham, and showed that heat first of all reduced the stones to obsidian, almost as pure as in the natural state. When melted under circumstances, the process of which he detailed, it became as workable as glass. It could be run into moulds, and applied to building and decorative purposes; and with a mixture of glass it resembled some of the beautiful serpentine of Cornwall. When rolled into thin sheets it was semi-transparent, and in bright black sheets it was useable in the place of slate, and was said to be a cheaper article. Specimens of the simple obsidian, and the various phases it underwent in the process of manufacture, were exhibited on the table.—Mr. B

ive compound may be applied to the preservation of ropes or strands of hemp, or to any fibrous or textile materials or fabrics.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

NORTH WHEAL CROFTY.—There are several points of great interest shortly to come off in this mine. The 160 and 170 fm. levels east are now approaching the on ground goes down in the bottom of the 150. The 170 west is in a lode 10 ft. wide, producing good work for tin. The last sale of tin for the month realised 700*t*. This mine is rapidly approaching a paying state.

GREAT DEVON AND BEDFORD (Colcharton).—Captain G. Richards reports that they are progressing with their operations; an excellent steam-engine is contracted for, which, together with engine-house, offices, smiths' shop, store-house, &c., are to be completed by October 1.

PROSPER UNITED.—The 70 west is worth 4 tons per fm., and the winze below the 60 fm. level, 6 tons per fm. The mines continue to look well.

CHIVERTON WHEAL ROSE.—This property is attracting the notice of capitalists in the locality of the mine, from the fact of its immediate connection with the East Wheal Rose, the stratification being identical with and containing the same lodes as that celebrated mine. The promoters of this company have adopted a wise course in the issue of shares, and giving all persons interested an opportunity of joining in the future management; and the more particularly, keeping it free from the obnoxious items of free shares, which is the ruin of many companies under the Limited Liability Act.

EAST WHEAL LOVEL.—There is a course of tin in the flat-rod shaft, sinking below the 26, worth upwards of 100*t*. per fathom. The mine is working at a good profit, and is destined ere long to take a prominent position in the Dividend List.

WHEAL PROSPER.—Mitchell's shaft is sinking in a good lode, and the levels driving west towards it are looking well, showing as if a good piece of tin ground will be opened out on communicating these levels with the shaft, and which will also facilitate in developing the extensive run of unworked ground west of Mitchell's, for about $\frac{1}{4}$ mile on the course of the tides.

EAST WHEAL GREENVILLE.—The lode in the shaft still continues to be worth between 5 and 6 tons of good ore per fm. In a few days the captain intends to drive east and west on the lode, when it is expected to be worth about 3 tons both east and west of the shaft. The district in which East Greenville is situated is considered the best in Cornwall. The mine presents fine prospects.

TWARNHAILE.—The parcel of copper ore sold last week weighed 261 tons 16 cwt. 2 qrs., the amount being 120*t*. 0s. 8d.

ST. DAVID'S GOLD MINING COMPANY have ordered a machine for washing alluvial deposits, which will be completed within a fortnight, and fully at work. In the Mine Elizabeth lode sulphide of gold has been discovered, combined with the sulphide of lead, of which there is a large quantity.

WEST WHEAL TREVELYAN.—In a few fathoms deeper this mine will be just as deep as the adjoining mine, Owen Yean, was when the latter mine met with its rich deposits of ore, by which it was enabled to pay dividends. The shaft, within the last week, has improved, it being now worth 1 ton per fm., with every appearance of further improvement.

ST. JUST CONSOLS MINE surprises everybody. The encouraging appearance, excellent position, and splendid tin lodes, with a beautiful 24-ft. water-wheel, and eight heads of stamps, lead one to imagine it cannot do otherwise than turn up a trumper, and soon will be selling large quantities of tin monthly. The lode in the guide shaft is presenting most favourable appearances, and the river lode is looking well. Stones of tin now broken may be seen at No. 12, Bucklersbury, London. The stamps continue working, stamping tinstuff, and the dressing-floors will shortly be in a position to dress all the tinstuff on a very cheap scale, in the mode is so altered of late that the round bobbins will do away with very considerable labour and expense, and I find such a bubble is now preparing for the floors in this valuable mining property. Looking at the locality of the property, and also all being worked by water-power, the most favourable results may shortly be anticipated.

NEW WHEAL MARTHA.—Captain James Seccombe has been appointed the superintending manager of this mine.

NORTH DOWNS.—The shareholders in this mine must have been much pleased to find their shares rise from 30*s*. to 50*s*. in just two days. The wonder is that the shares should have been neglected so long, as a little improvement would place the mine again in the Dividend List, and when most probably the old price of 6*s*. would be again reached. The prospects of the mine are at the present time more chearing than they have been for a long time past, an important improvement in a winze having taken place within the last few days.

WORVAS DOWNS.—Active operations are being carried out in this mine in the erection of steam stamps. The mine is looking very well.

EARL PROVIDENCE is looking very well indeed, and promises to become one of the best mines in the neighbourhood.

CONSOLIDATED COPPER MINES OF COBRE.—The great improvement in this company's property (advertised in the Journal of June 20) seems likely to prove of greater importance than was at first supposed. Referring to the newly-discovered north lode, the manager, in the last advice received, hopes that Mr. Petherick will give instructions to Capt. Stephens to prosecute the driving of two of the upper levels, and at least one level below, so as to open the lode as soon as possible, as we may meet with rich ore in the upper levels, as was the case on the north lode, west of the slide." Mr. Ferne's letter, dated June 7, states—"I am exceedingly glad to inform you that the last accounts about the lode in the 120 cross-cut are still more flattering, and there is a great improvement in the lode going west."

FATAL ACCIDENT AT DEVON GREAT CONSOLS.—An accident occurred on Monday night at the Great Consols Mine, when a man named Roger Vale, who resides at Dolswayre, near Gunnis Lake, met with instantaneous death while at work underground, by the falling of a stone from the kibble. He was working what is termed "night core," and had only been underground a few minutes when the accident happened.

BOILER EXPLOSION AT SOUTH CRENNER.—On Friday last several persons had a most extraordinary escape from a violent death at the South Crenner Mine. The pumping-engine boiler burst while fourteen persons were standing on it, and notwithstanding that the explosion was so violent as to force several pieces of the boiler through the roof of the engine-house, only three persons received any injury. A more remarkable escape has been rarely witnessed. Capt. Chegwin received some injuries about his chest and arms; John Roberts, of Godolphin, was scalded about the legs and feet; and John Sims, of Kew, also received some slight injury.

RAILWAY CALLS.—The amount falling due in July is 725,680*t*.—making the total called during the seven months of the present year, 4,604,179*t*.

WEATHER PREDICTIONS.

SIR,—Many of your readers have requested me to forward my predictions weekly during the coming weeks of harvest. I will endeavour to oblige them. In my last I informed you the first week in July the weather would be variable, with winds about the 2d and 3d. Well, I think this is correct. From the 7th to the 11th, fine; from the latter date to the 20th, changeable, with winds about the 7th, 13th, and 14th. In my next I shall give some information of the weather for the month of August.

26, Throgmorton-street, July 2.

GEORGE SHEPHERD, C.E.,
Author of the "Climate of England."

The Railway System of the World.

TESTIMONIAL TO WILLIAM HENRY JAMES, C.E.,

In recognition of his unrequited public services in connection with the founding of our magnificent railway system, by the gratuitous assistance he rendered his late father, William James, Esq., of Warwick, land agent, ironmaster, and civil engineer, in surveying, levelling, and planning the Liverpool and Manchester Railway, with its branches to Bolton, &c., in the years 1821, 1822, and 1823, the first established for engine passenger transit; and for his having allowed the late George Stephenson and his partner, Mr. Leob, of Newcastle-upon-Tyne, the liberty of using his invention of the introduction of Tubes into the boilers of (their) locomotive engines, as shown by an agreement, dated Sept. 1, 1821, which introduction of Tubes, as first suggested by Mr. William James, and since adopted, modified, and perfected by the engineering profession, is well known to every engineer to have caused the entire success of the modern railway system; and, lastly, to compensate him in some slight degree for the loss of his patrimony £10,000, as settled by will, as well as private property of great value, by the ruin of his father, in 1823, while so engaged, and while so assisting him in laying the foundations of the great railway system of the world, which has already conferred such inestimable benefits upon mankind.

As a guarantee, the following eminent engineers and gentlemen have already attached their names in furtherance of this testimonial, to which it is expected many others will soon be added, viz.:—

GEORGE RENNIE,
Sir JOHN MACNEILL,
THOMAS BRASSEY,
JOSIAH PARKES.

PERSONAL REFERENCES.
Mr. RICHARD MIDDLETON, *Mining Journal*, 26, Fleet-street.
Mr. RICHARD A. BROOME, *Mechanics' Magazine* office, 166, Fleet-street.

It is respectfully requested that all contributions may be made to Messrs. Courts and Co., bankers, London, who have kindly consented to receive such subscriptions; and any sums offered will be carried to the credit of "Subscriptions for W. H. James, C.E.," and will be held at his disposal.

A complete list of subscribers, together with the amount of their donations, will be published as soon as they shall reach an adequate amount.

MANCHESTER.

M. R. W. HANNAM: OFFICES, ROYAL INSURANCE BUILDINGS, KING STREET, MANCHESTER.

MINING, SLATE QUARRYING, INSURANCE, and GENERAL STOCK and SHAREDEALER.

A monthly Investment Circular on application.

Sharedealing in this office is limited to special mines, and companies whose pretensions have been personally investigated, and to the dividend-paying mines ordinarily dealt with on the London market, and for the latter purpose arrangements have been made for the earliest information from the great mining districts. There can be little doubt that in dealing with well-established, dividend-paying mines, investors, without any greater risk than accrues from purchase of railway or house property, receive a much larger regular profit than from any other species of investment, free from all trouble, and paid in the most convenient form for those who have limited incomes—viz., every two or three months; while those who enter into new undertakings, such as progressive mines, have the knowledge that nothing which is not bona fide, and has stood the test of thorough examination, is submitted to them. It cannot, of course, be expected that where the profits are so enormous that these latter investments should be entirely free from risk. All that can be done is to ascertain the respectability of the management, and the value of the prospects. This done, no speculations are likely to be so valuable as those in mining operations; it being no uncommon occurrence for shares to rise in value 200 and 300 per cent. in a few months.

M. R. JAMES STRIDE, Secretary of the former Mining Exchange, Hall of Commerce, begs to say that he is a COMMISSION AGENT for mining shares.—Address, Jamaica Coffee House, St. Michael's-alley, Cornhill.

LIST OF SUBSCRIBERS TO THE TESTIMONIAL TO WILLIAM WILLIAMS, ESQ., OF TREGULLOW, CORNWALL.

Amount already advertised	£120	8	Capt. Richard Pryor, Redruth	£1	1	0
Rev. Thomas Phillipps	5	5	Capt. Ralph, St. Day United	1	1	0
William Michell, Esq., Newham	5	0	Capt. Cock, ditto	1	1	0
H. Michael Williams, Esq.	5	0	Capt. Oats, ditto	1	1	0
George Williams, Esq.	5	0	Capt. Gilbert, ditto	1	1	0
E. H. Hawke, jun., Esq.	2	12	Capt. Blight, ditto	1	1	0
Rev. Saltern Rogers, Gwennap	2	2	Capt. Martin, ditto	1	1	0
Peter Clymo, Esq., Liskeard	2	2	Capt. R. Pryor, jun., Trelawny	1	1	0
Capt. Abram. Ralph, Nantwyd	2	2	Capt. W. S. Garby, Redruth	0	10	6
T. Harry Tilly, Esq., Falmouth	1	0	Capt. Elisha Trewartha, Scorrier	0	10	6
Mr. John Kendall, Redruth	2	2	Capt. Henry Andrews, Truro	0	10	6
Mr. Abrm. Ralph, Nantwyd	2	2	Capt. John Grenfell, Nth. Downs	0	10	6
T. Mitchell, Esq., M.D., Redruth	1	1	Capt. Pope, Redruth	0	10	6
A Friend, per Mr. Broad, Falmouth	1	1	Capt. John Pearce, St. Day United	0	10	6
Mr. Nicholas Whitley, Truro	1	1	Capt. Mr. A. C. Stephens, Truro	0	10	6
Mrs. Tregella and Son, Truro	1	1	Capt. Mr. John Brewer, Truro	0	10	6
Mr. J. Hale, Truro	1	1	Capt. Mr. J. R. Netherton, Truro	0	10	6
Capt. Thos. Mitchell, Nantwyd	1	0	Capt. Mr. Bennett, Helston	0	10	6
Mr. Uren Wheal Reath	1	0	Capt. Mr. J. Latimer, Plymouth	0	10	6
Rev. A. Vandrey, St. Agnes	1	0	Capt. Mr. H. Morcom, Carharrack	0	10	6
Mr. John Sims, Redruth	1	0	Capt. Mr. Thomas Mills, Redruth	0	10	6
Mr. Athas. Pryor, Nantwyd	1	0	Operative miners of the Gwennap Mines	8	6	11
Mr. Edwin Cook, Redruth	1	0				
Mr. Frederick Dabb, Redruth	1	0				
			Total	£520	10	11

The PRESENTATION of the TESTIMONIAL will be made on TUESDAY, the 14th inst., at Tabbs's Hotel, Redruth.

Dinner will be provided by Mr. Tabbs, at 15*s*. each (including wines), which is ordered to be on the table at 2 o'clock precisely.

Tickets may be obtained of Mr. TABBS any day before the 10th inst.

Dated St. Day, July 2, 1863.

B. MATTHEWS, Hon. Sec.

WANTED.

RUNCORN SMELTING WORKS, NEAR LIVERPOOL.

MR. PEMBROKE JONES having succeeded Messrs. James Stubbs, Price, and Co, in the above works, is in WANT of ROUGH LOW PRODUCE LEAD ORES, and would be happy to receive samples from the various mining companies, addressed Lead Works, Runcorn, Cheshire.

TRELOGAN LEAD MINING COMPANY (LIMITED).

NEAR HOLYWELL.

WANTED, a RESIDENT CAPTAIN for the above MINE. He will be required to TAKE the ENTIRE SUPERINTENDENCE of the SURFACE ARRANGEMENTS, and FULLY to DEVELOPE the RESOURCES of the PROPERTY. To a thoroughly experienced and competent man liberal terms would be offered; none other need apply.—Address, WM. MARTIN, Esq., managing director, Trelogan, near Holywell.

WANTED, a CLERK, in a MINING OFFICE, who understands book-keeping, and one that can open a set of books upon the limited liability principle.—Apply by letter, addressed "W.", 34, Bloomsbury-square, London.

WANTED, for an ENGLISH MINING ESTABLISHMENT on the Continent, a FOREMAN CAPABLE of SUPERINTENDING PLATE LAYING, and KEEPING a LOCOMOTIVE MINERAL LINE in good working ORDER. Age, not over 35 years. Must be a thoroughly practical man.—Address, "A. B.", Mr. Cowdell, solicitor, 21, Abchurch-lane, London, E.C.

WANTED, for an ENGLISH MINING ESTABLISHMENT on the Continent, a YOUNG MAN well ACQUAINTED with RAILWAY SURVEYING, and SUPERINTENDING EARTH WORKS and MASONRY. None need apply who have not had several years' experience on a Welsh or Scotch line.—Address, "A. B.", Mr. Cowdell, solicitor, 21, Abchurch-lane, London, E.C.

WANTED, a 60 or 65 in. cylinder PUMPING ENGINE, with suitable BOILERS. Also, a 40 in. cylinder PUMPING ENGINE, with BOILERS.—Apply to Mr. GEORGE H. CARDNO, 15, New Broad-street, London; or to Mr. W. PAGE CARDNO, Camborne Cornwall.

IRON PUMP PIPES WANTED, near a railway, for carriage to pits in Cumberland: TWENTY-FOUR FATHOMS of 11 in. or 12 in. CAST-IRON PIPES, with flanges fitted to joints, and set to work in a 40 fm. pit.—Apply, with particulars, to "No. 12 Box," Post-office, Whitehaven.

LEAD SETT.—The ADVERTISER has a VALUABLE LEAD SETT, situated in one of the best lead districts in CORNWALL. There are several lodes known to be in the sett, a mine now making considerable returns close to the boundary of his sett, and on the same lodes. The advertiser WISHES to have a PERSON to JOIN HIM, so as to bring out the mine; he may have an interest on liberal terms.—Apply to "G. F.", Post-office, St. Austell, Cornwall.

TO MINING CAPITALISTS.—A gentleman has expended about £2000 in opening a PROMISING LEAD MINE, and erecting machinery for pumping and drawing. The sett contains five lodes, three of which have been extensively wrought on, with favourable results. The PROPRIETOR, being anxious to have the mine thoroughly proved (which can now be done for a very moderate sum) would be WILLING to MAKE ARRANGEMENTS with a gentleman to DISPOSE of ONE-QUARTER of the mine, on favourable terms, for the purpose of putting the mine in good working order. The mine is situated about 1½ miles from a railway station, and in a mineral neighbourhood.—Further information, and full particulars, will be given on application, prepaid, to "R. H.", Post-office, Llandioedd, Montgomeryshire.

TO CAPITALISTS AND MINE SPECULATORS.—WANTED TO BORROW, a SUM of TWO THOUSAND POUNDS, for the WORKING of a RICH and INEXHAUSTIBLE COPPER MINE, in the ISLAND OF CORSICA, with the OPTION to PURCHASE ONE-FIFTH PART for the same amount, on the most favourable terms.—Answers, from principals only, to be addressed Mr. CHATELLAN, 12, Rue Monastier, France, Marseilles.

TO SPECULATORS.—The ADVERTISER, a retired mine captain of great practical experience in Cornwall, is in POSITION to GIVE the NAMES of SIX PROGRESSIVE MIN

IMPORTANT SALE OF FREEHOLD and LEASEHOLD ESTATES, near Plymouth, in the several parishes of ST. BUDEAUX and BUCKLAND MONACHORUM, in the county of DEVON, and LANDRAKE, in the county of Cornwall, portions of the property presenting favourable prospects in regard to undeveloped mineral wealth, and other portions furnishing eligible sites for the erection of dwelling-houses in a highly picturesque locality.

M. H. JOHN ANDREW, Auctioneer, WILL SELL, BY AUCTION, on Friday, the 31st day of July, 1863, at the Globe Hotel, Plymouth, at Three o'clock for Four P.M. precisely, in the undermentioned lots, the following very VALUABLE PROPERTY:-

Lot 1 will comprise all that compact FARM, called MOOR, otherwise MOOR AND BEELLES, situated in the parish of ST. BUDEAUX, DEVON, held for the remainder of a term of 500 years, of which 317 years, or thereabouts, are unexpired; together with FOUR FREEHOLD FIELDS, or CLOSES OF LAND, formerly parts of King's Tamerton and Cudif's tenuements, and containing a good FARM HOUSE, with suitable FARM BUILDINGS, and about 57 A. 2 R. 18 P. of ORCHARD, MEADOW, ARABLE, and PASTURE LAND, the whole being let to a highly respectable tenant, for a term of seven or fourteen years, from Lady-day next, at the annual rent of £142.

This desirable farm is about one mile from Saltash, and two miles from Plymouth and Devonport, and is adjacent to the turnpike-road as well as to Keyham Lake, where nature of every description can be obtained. There is also a QUARRY on the estate, let to the waywardens, at the annual rent of £1.

The fertile nature of this property, with its proximity to Plymouth and Devonport, greatly enhance its agricultural value, while the beautiful views which portions of the estate command of the Hamoaze, Mount Edgcumbe, and other delightful scenery, present unusual attraction for the erection of villa residences. The present residence is about a mile from the parish church, is plentifully supplied with water, and the rates and taxes are exceedingly moderate.

Lot 2 will comprise all that FREEHOLD ESTATE, called COOMBE, situated in the parish of BUCKLAND MONACHORUM, DEVON, containing about 35 A. 2 R. 27 P. of watered MEADOW, ORCHARD, and ARABLE LAND, with a good FARM HOUSE and FARM BUILDINGS thereto. Adjoining, and comprised within the above measurement, is a MANURE and EDGE TOOL MANUFACTORY, worked with water-power, with stores and yard, the whole being let to a highly respectable tenant, for a term of seven or fourteen years, from Lady-day next, at the annual rent of £75.

The farm adjoins the main road between Tiverton and Buckland Town, and is within one mile from Lopwell lime kilns, on the navigable River Tavy (where town soil and other manure can be obtained), two miles from the Horrabridge station on the Plymouth and Tavistock Railway, six miles from Tavistock, and eight miles from Plymouth and Devonport.

The above estate has a right of pasture on Roborough Down, and is well watered. It presents favourable indications of much mineral wealth (a copper lode having been discovered near the farm-yard), which from the copious supply of water could be doubtless worked with much advantage, and at a trifling cost.

Lot 3 will comprise all that FREEHOLD ESTATE, called LANTALLACK, situated in the parish of LANDRAKE, in the county of CORNWALL. This desirable farm consists of an excellent FARM HOUSE (calculated for a respectable family), with suitable FARM BUILDINGS, and about 82 A. 2 R. 33 P. of superior PASTURE, MEADOW, ORCHARD, and ARABLE LAND, now in the occupation of Mr. John Adams, at a rental of £160 per annum, and whose tenancy expires at Michaelmas next.

There are two labourers' cottages, with gardens, attached to this estate. The farm is situated within one mile of Landrake village, and in the immediate vicinity of Tiverton, at the head of the navigable River Lynher (where farm produce can be shipped and manure obtained), five miles from Saltash, six miles from Calstock, seven miles from Liskeard, and three miles from the St. German's station of the Cornwall Railway.

There are strong indications of a valuable mineral lode running through this estate, and applications have been made by respectable persons desirous of working the same, but which the present owner (who is invested in his capacity of trustee with a power of sale only, without any power of granting mining leases) has been obliged to decline.

The several estates can be viewed on applying to the tenants, and any further information may be obtained from Mr. JOHN ANDREW, land agent and surveyor, Ridgeway, near Plymouth; or from Messrs. BOOKE, BEWES, and BOOKE, solicitors, Manor Office, Stonehouse, where maps of the property can be seen.—Dated June 26, 1863.

THE BISHOPWEARMOUTH IRONWORKS, SUNDERLAND.

M. ESSRS. FULLER AND HORSEY are instructed by the Trustees of the Derwent and Consett Iron Company (Limited), and under the sanction of his Honour Vice-Chancellor Kindersley, to SELL, BY AUCTION, on Thursday, August 20th, 1863, at Two o'clock in the afternoon precisely, at the Queen's Head Hotel, Newcastle-upon-Tyne, in one lot (unless an acceptable offer be previously made by private contract).

The BISHOPWEARMOUTH IRONWORKS, a HIGHLY IMPORTANT FREEHOLD and COPYHOLD PROPERTY, at Sunderland, together with the costly MACHINERY, PLANT, and UTENSILS in trade.

The land occupied comprises a site of 12 A. 1 R. 2 P., or thereabouts, and has a frontage of about 300 yards next the Hylton Road, immediately opposite the extensive glass works of Messrs. Hausey and Co.

The North-Eastern Railway (Penshaw branch) forms the western boundary, a siding on to which affords railway communication with the docks at Sunderland, which are little more than a mile distant, with the various ironworks in the district, and with all parts of the kingdom; the Lambton Colliery Railway to the River Wear intersects the property, and the Hetton Colliery Railway forms the eastern boundary. From each of the colliery lines rails have been laid on to the works, where extensive coal depots are formed, thus insuring a constant supply of coals direct from the pits on the best terms. The average price of coal does not exceed 3s. per ton. Labour is abundant and cheap, and scrap iron is brought as ballast by the numerous return colliers from the southern and other ports, at almost nominal freights.

The increasing local demand for iron must also not be overlooked, so that whether for obtaining the supply of raw material and labour, or for the facility of delivering the manufactured produce, few similar establishments possess so many advantages.

The works, as at present arranged, are capable of producing annually about 15,000 tons of rolled iron, 200 tons of large forgings, and 2500 tons of castings, but by the introduction of steam-hammers the production of large forgings (for which there is a great demand) may be materially increased.

The tenure of the land (principally) is freehold and copyhold (nearly equal to freehold), but some parcels of accommodation land are held by a yearly tenancy.

The new line of railway which will shortly be opened from the Lambton pits to the Wear will be of great advantage to this property, as the present colliery line will then be abandoned (except for the supply of these works), and the site doubtless obtained, thus removing the intersecting line.

The outlay made in buildings and machinery has been very large, certainly not less than £70,000 or £80,000 having been expended, a considerable portion within the last 15 years, when the new works were erected.

These comprise rail, merchant, and puddling mills, fitted with three trains of rolls, shears, squeezers, hammer, and saws, with all the requisite gearing, driven by THREE HIGH PRESSURE STEAM ENGINES, the largest of which is of 120 horse power; NINE STEAM BOILERS, TWENTY-ONE PUDDLING FURNACES, and NINE MILL FURNACES, the whole under a lofty roof, covering 23,000 superficial feet, supported on iron columns. ONE DOUBLE and TWO SINGLE REFINERIES, with BLAST ENGINE and THREE STEAM BOILERS, TWO HAULING ENGINES, with BOILERS, winding drums and wire-ropes; an open shed, with CORRUGATING MACHINE, PUNCHING MACHINE, and DRILLING MACHINE, worked by a HORIZONTAL STEAM ENGINE, sheet warehouse, smiths' shop, time office, and two bulldog kilns.

The old works comprise the MILL, fitted with two trains of rolls for puddled bars and merchant bars, two pairs of shears and hammer, with gearing; HIGH PRESSURE STEAM ENGINE, and THREE BOILERS; THREE FORGES, with hammers, furnaces, cranes, and THREE STEAM ENGINES, with BOILERS; an engineers' fitting shop, with tools; brass foundry, with three pot furnaces; a spacious and lofty IRON FOUNDRY, with air furnace, two cupolas, cranes, loam mill, and blast fan, worked by HIGH PRESSURE STEAM ENGINE and BOILER; three core stoves, a light-pattern makers' shop, with pattern lofts over; time-keeper's office, and draughtsman's room; a deep well, affording an ample supply of excellent water, raised by two powerful pumps; a brick and cement reservoir, capable of containing 180,000 gallons; smiths' shops, capital stabling for sixteen horses, SEVENTEEN BRICK COKE OVENS, and yard; manager's residence, offices for clerks and principals, iron warehouses, and various accessory erections; a 20 ton weighbridge, over which all wagons pass on entering.

The yards and works are intersected by railways laid down, connecting the various sections of the works with each other, and the whole with the lines of the North-Eastern and colliery railways; and water and gas laid into all parts of the buildings.

At the western extremity of the property is a large and convenient depot (formerly a stone quarry) for the waste from the works.

The works may be viewed till the sale by cards only, which, with printed particulars and plan of the property, may be obtained (post free on receipt of two stamps) of JOSEPH ANDERSON, Esq., solicitor, Newcastle-on-Tyne; Messrs. R. P. and H. PHILLIPS, solicitors, Newcastle-on-Tyne; Messrs. HUTCHINSON and LUCAS, solicitors, Darlington; JAMES CROWDY, Esq., solicitor, 17, Seer's Inn, Fleet-street, London, E.C.; Messrs. FIELD, ROSE, and FRANCIS, solicitors, 36, Lincoln's Inn-fields, London, W.C.; Messrs. COLEMAN, TURQUAND, YOUNG, and CO., accountants, 16, Tokesbury-yard, London, E.C.; and of Messrs. FULLER and HORSEY, 13, Billiter-street, London, E.C.

Particulars may also be had at the *Midland Counties Herald* office, Birmingham; at the *Glasgow Herald* office, Glasgow; at the office of the *North British Advertiser*, Edinburgh; and at the Station Hotel, Carlisle.

T. GUNPOWDER AND ROPE MANUFACTURERS, AND CAPITALISTS.—FOR SALE, BY PRIVATE CONTRACT, by executors, Lot 1.—DAVEY'S PATENT RIGHT for "IMPROVEMENTS IN BLASTING POWDER," granted 1858. Also, for "IMPROVEMENTS IN THE MANUFACTURE OF GUNPOWDER AND EXPLOSIVE COMPOUNDS," granted 1862.

The blasting powder weighs from 20 to 30 per cent. less than ordinary gunpowder, and can be rendered at the same price. Invaluable for mines, slate quarries, and collieries. Testimonials given.

Also, the LICENSED POWDER MANUFACTORY, STEAM ENGINE and MACHINERY, with MAGAZINE, STORES, OUTBUILDINGS, and PREMISES, comprising 7½ acres of ground adjoining the sea at Nancekuke, Illogan, Cornwall. The premises are held for 99 years, determinable on the deceases of three lives, aged 18, 18, and 9 years.

Lot 2.—Also, the PHOENIX ROPE WALK, situate at Illogan highway, in ILLOGAN aforesaid, 240 fms. long (90 fms. being slate roofed), with all necessary houses, lofts, &c., and about 7 acres of pasture land. Also, AGAR COTTAGE, GARDENS, ORCHARDS, &c. Lot 2 is held for 99 years, determinable on the deceases of two lives, aged 22 and 27 years.

Also, a POLICY OF ASSURANCE, effected in 1849, in the Scottish Equitable office, for SEVEN HUNDRED POUNDS, payable on the decease of the younger life. Annual premium, £12 17s. 1d. Bonuses declared, £177 13s. 10d.

For particulars, apply to Messrs. HODGE, HOCKIM, and MARRACK, solicitors, Truro, Cornwall.

LIME WORKS, SOUTH STAFFORDSHIRE.—TO BE LET ON ROYALTY, the very VALUABLE PITS and LIME WORKS, situated at HAY HEAD, near WALSLAW. These well-established works are fitted up with the most complete and conveniently arranged MACHINERY, capable of raising 500 to 1000 tons of limestone per week. Two shafts have been sunk down, and the underground workings opened out, ready to commence raising stone immediately.

The works communicate by tramway with the Birmingham Canal, at a short distance from the pits.

The lime produced from this mine is peculiarly adapted for hydraulic purposes, and was used in the recently-executed tunnel of the Birmingham Canal Company, at Nether-ton, near Dudley, and also in the locks communicating with the Staffordshire and Worcester Canal, at Church Bridge, near Staffsford, an inspection of which will prove its superiority over other lime for such purposes. It has also been used by the Regent's Canal Company, London.

Application to be made to Mr. SAMUEL BAILEY, mining engineer, the Pits, Walshaw.

COUNTIES OF GLAMORGAN and MONMOUTH.

TO CAPITALISTS AND OTHERS.

SALE OF VALUABLE FREEHOLD LAND, AND COPYHOLD FARM. M. R. H. W. HARRIS has been favoured with instructions from the trustees under the will of the late Anthony Hill, Esq., to OFFER up for PUBLIC COMPETITION, at the Bush Hotel, Merthyr Tydfil, on Tuesday, July the 10th, 1863, at Twelve o'clock noon (subject to such conditions of sale as shall be then produced), the following VALUABLE PROPERTY:-

All that COPYHOLD FARM and LANDS, called TYR-PENTIS, situate in the parish of Trethwin, in the county of Monmouth, now in the occupation of Morgan Davies, as tenant thereof, and containing 61 acres, more or less, bounded by lands of John Hurley, Esq., the representative of the late Capel Hanbury Leigh, Esq., Miss Webb, Mr. H. Williams, and the late Chas. C. Williams, Esq.

This farm contains all the SEAMS of COAL and IRONSTONE found in the Pontypool district, is 3½ miles from Pontypool town, 1½ miles from the West Midland Railway, ½ mile from the Western Valley Railway, and about 10 miles from the port of Newport. The rental of the farm is not £50 per annum, and is customary-hold.

Also, all that SLANG of LAND, situate in the parish of Merthyr Tydfil, commencing at an old well called Baran Llywion, and running parallel for nearly a mile with and adjoining to the River Taff, and terminating above the point near Upper Bridge, on the basic tramroad. The average width is about 33 yards.

This piece of land is especially adapted for the erection of powerful machinery, for which it was intended by its late proprietor, having an excellent command and right of water from the River Taff, there being a fall in the river of nearly 30 ft.

The property also lies contiguous to the Glamorganshire Canal, to which there is a right of way reserved.

The West Midland and Taff Vale Railways run through the property. The abundant facilities of obtaining any description of coal in addition to the fine water-power, renders this property one of the most eligible for the erection of any description of iron or other manufacture.

The distance from Merthyr is only 6 miles, and from the port of Cardiff 18 miles, and it is opposite to the junction of the Taff Vale and West Midland Railway, near Quaker's Yard.

The above properties may be viewed on application to Mr. RICHARD HEPPELL, surveyor, Merthyr, who will show the premises; and printed particulars may be had of Messrs. UPTON, JOHNSON, and UPRON, 20, Austinfriars, London; Mr. J. W. RUSSELL, solicitor, Merthyr Tydfil; and of the auctioneer, 140, High-street, Merthyr Tydfil, where a plan of the different properties can be seen.

Merthyr Tydfil, June 2, 1863.

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WORKING COLLIERY and PLANT, at PLATT BRIDGE and WIGAN.

M. ESSRS. WILLIAM PEARSON AND SON WILL SELL, BY AUCTION, on Friday next, the 10th of July inst., at Four o'clock prompt, at the Eagle Hotel, Wigan (unless previously disposed of by private treaty, of which due notice will be given).

The whole of the TENANT'S RIGHT to the COLLIERY at PLATT BRIDGE, belonging to the Bryn Moss Coal and Cannel Company (Limited), in the township of Ince, near Wigan, with the WORKING PLANT, PUMPS, ENGINES, BOILERS, MACHINERY, TOOLS, RAILS, &c. and branch railway to the Leeds and Liverpool Canal, and all the requisite appliances, now on the premises, for a working colliery.

The colliery is held for a lease of 60 years, from the 1st day of February, 1859, and comprise the mines lying underneath the freehold estates of Mr. Parsons and others, in extent 85 A. 2 R. 8 P. statute measure, or thereabouts.

The quality of the mines is well known, and the property being bounded by and in communication with the North Union Railway and the canal, the facilities of conveyance to all parts of the country are superior to any colliery in the district. The royalty is £30 per foot per Cheshire acre, with a fixed annual rent of £200, which sum merges into the royalty rent.

The tenants have a right by their lease to purchase, at any time before the 14th July, 1865, the mines, royalties, and 13 statute acres of the surface, for £2000, all rents and royalties paid in the meantime being allowed for against interest on the purchase money.

Mr. HAZTON, at Platt Bridge, or Mr. LIVESAY, mineral surveyor, will point out the colliery and premises.

For further particulars, apply to the auctioneer, or Messrs. LAKE, MARSHALL, and DELI, solicitors, 1, Union-court, Castle-street, Liverpool.

FARM and SLATE QUARRY, SOUTH DEVON.

An EXCELLENT FARM, with LARGE and VALUABLE SLATE QUARRY, in the parish of UGBOROUGH, near IVYBRIDGE, DEVON, twelve miles from Plymouth, and close to three important stations on the South Devon Railway.

M. R. JOHN MALLETT WILL SELL, BY AUCTION, on Monday, the 13th day of July next, at the London Inn, Ivybridge, at Two o'clock for Half-past in the afternoon, either together or in the following lots (subject to such conditions as will be then and there produced), viz.:—THE FEE SIMPLE of all that BARTON or FARM, called WOOD and BLOWDEN, situate in the parish of UGBOROUGH, DEVON.

Lot 1 comprises a good FARM HOUSE, with all necessary FARM BUILDINGS, and SEVENTY-SEVEN ACRES (the same more or less) of superior ORCHARD, MEADOW, ARABLE, and PASTURE LAND, in the occupation of Mr. Richard Cole, as tenant thereof, for a term of 7 or 14 years, from Lady-day next, 1861.

Also, a SLATE QUARRY, measuring about 4 acres of same estate, which has been in work about a century, and which is now held under lease for a term of 21 years, from the 24th June, 1853, by E. T. Roe, Esq., M.D., producing a large quantity of slate of very superior quality.

About 50 acres of the farm contain slate of the best description, and several sets could be granted thereout, the rock being inexhaustible.

Lot 2.—TWO superior COTTAGES, one of which is fit for the residence of a respectable family, having eight rooms, and the other cottage adjoining four rooms, with necessary outbuildings. TWO good GARDENS, and a FIELD of LAND, containing 3 A. 23 R. or thereabouts.

The whole of the property is tithe free, and land tax redeemed.

The above property being full of slate rock, within a mile and a half of the Stowford siding, and about two miles from Ivybridge and Kingsbridge-road stations on the South Devon Railway, only twelve miles from the port of Plymouth, and nine miles from Totnes, gives great facilities for sending slate to all parts of the kingdom.

Such an opportunity for a spirited capitalist or a company to enter largely into the slate trade is very seldom to be met with. From the great facilities for sending off the goods by rail and water, it is quite certain that a large profit can be realised.

To persons desirous of mercantile investment, this estate presents an opportunity of more than ordinary advantage.

The farm is pleasantly situated, and many good sites for building can be found on the property.

The market towns for cattle are Ivybridge, two miles (monthly); Modbury, three miles (ditto); and Totnes, nine miles (ditto).

There is good trout fishing in the neighbourhood. Foxhounds are kept at Ivybridge, and hunt the country immediately around.

For viewing, application may be made to Mr. HENRY SOREN, the owner, at Wood Cottage, on the property, on Tuesdays, Wednesdays, and Thursdays. Plans and particulars can also be obtained of him; of the auctioneer, Ashprington, near Totnes; or of Mr. WALTER FRIEND, solicitor, Post-office Chambers, Exeter.

NEWPORT, MONMOUTHSHIRE.

TO IRONFOUNDERS, ENGINEERS, AND OTHERS.

M. ESSRS. CORNELIUS EVANS AND SON WILL SELL, BY AUCTION, without reserve, on the premises, outside the engine house, at the east side of the docks, Newport, on Thursday, the 16th of July,

Prize Medal Awarded Great Exhibition, 1851, for
Mining Chains.

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MANUFACTURERS OF
IMPROVED FLAT and ROUND CHAINS and WIRE ROPES, for
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BOUKS, KIBBLES, BOILERS, IRON BLOCKS, and BLOCK CHAINS,
RAILWAY COUPLINGS, HORSE TRACES, CRANE CHAINS,
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Dia. Height.	Dia. Height.
100 gallons	48 x 84
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"	24 x 36 "
"	2 15 0
"	37 x 84
"	7 7 0 40 "
"	21 x 38 "
"	2 5 0
"	35 x 79
"	6 10 0 30 "
"	21 x 30 "
"	1 15 0
"	33 x 72
"	6 0 0 25 "
"	19 x 20 "
"	1 5 0
"	30 x 66
"	5 5 0 20 "
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STRONG IRON BUCKETS:-

2½ gallons.....	46. 6d.	3½ gallons.....	5s. 6d.
3 " " "	5 0 4 "	" " "	6 0

WAGON GREASE, in 4 and 8 cwt. casks.

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J. U. BASTIER begs to call the attention of proprietors of mines, engineers, architects
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introduced to public notice. The principle of this new pump is simple and effective, and
its action is so arranged that accidental breakage is impossible. It occupies less space
than any other kind of pump in use, does not interfere with the working of the shafts
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The following statement presents some of the results obtained by this hydraulic machine
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2.—Its price and expense of installation is 75 per cent. less than the usual pumps em-
ployed for mining purposes.

3.—It occupies a very small space.

4.—It raises water from any depth with the same facility and economy.

5.—It raises with the water, and without the slightest injury to the apparatus, sand,
mud, wood, stone, and every object of a smaller diameter than its tube.

6.—It is easily removed, and requires no cleaning or attention.

A mining pump can be seen daily at work, at Wheal Concord Mine, South Sydenham,
Devon, near Tavistock; and a pumping pump at Woodside Graving Dock Company
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J. U. BASTIER, sole manufacturer, will CONTRACT TO ERECT his PATENT PUMP
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GRANT LICENCES to manufacturers, mining proprietors, and others, for the USE
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Capitalists who seek safe and profitable investments, free from risk, should act only

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G E O R G E S P I L L & C O . ' S I M P R O V E D M A C H I N E R Y B E L T I N G ,
WARRANTED NOT AFFECTION BY HEAT, WATER, OR GREASE, AND MADE TO ANY LENGTH IN ONE PIECE.

Inches wide.	1	1½	2	2½	3	3½	4	4½	5	5½	6	7	8	9	10	11	12
No. 1 substance.	0 3	0 4½	0 6	0 7½	0 9	0 10½	1 0	1 1½	1 3	1 4	1 5	1 6	1 7	1 8	1 9	1 10	1 11
No. 2 substance.	—	—	—	0 11½	1 1 ½	1 4	1 6	1 1 ½	1 9	1 10½	2 0	2 3	2 6	2 9	3 0	—	—
No. 3 substance.	—	—	—	1 6	1 7½	1 9	1 10½	2 0	2 3	3 0	3 6	4 0	4 6	5 0	5 6	—	—

These Belting (unlike the ordinary manufacturers) are woven into one solid substance from the best flax yarn, and saturated with a compound to consolidate them, which is not liable to decomposition. They possess extraordinary strength, as the following certificate will verify, which renders them particularly adapted for paper and saw mills, threshing machines, grain elevators, foundries, machine shops, &c.

COPY OF CERTIFICATE, FROM THE PORT OF LONDON CHAIN CABLE PROOF HOUSE.
THIS IS TO CERTIFY, that the tensile strength of Machinery Belting, manufactured by Geo. Spill & Co., of HACKNEY WICK, LONDON, as proved by my chain cable test-
ing machine, at Rotherhithe, to be as follows, viz.:—

THE MINING SHARE LIST

DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last Paid.
1000 Albury Edge (Cheshire) [L.]	10 0 0 ..	..	..	..	7 18 8 ..	8 10 0 .. May, 1862
4000 Bedford United (copper), Tavistock	2 0 6 0 ..	..	..	..	18 0 0 ..	9 2 6 .. Dec, 1862
1248 Boscombe (tin, copper), St. Just	5 15 0 ..	..	..	..	0 0 0 ..	9 5 0 .. June, 1863
2500 Boston (tin), St. Just	20 10 0 ..	..	..	..	25 10 0 ..	1 0 0 .. Mar, 1863
1000 Botallack (tin, copper), St. Just	9 5 0 ..	..	..	..	482 15 0 ..	7 0 0 .. May, 1863
3000 Broadford (lead), Cardigan [L. £25]	3 7 6 ..	..	..	..	0 0 0 ..	9 3 0 .. April, 1863
918 Cargill (silver-lead), Newlyn	15 5 7 ..	..	..	..	3 10 0 ..	1 5 0 .. May, 1863
1000 Carr Brae (copper, tin), Illogan	15 0 0 ..	..	..	..	275 10 0 ..	2 0 0 .. Feb, 1862
3000 Chiverton (lead), Perranzabuloe	..	..	..	..	..	..
256 Copper Hill (copper) Redruth	48 0 0 ..	80%	..	..	9 10 0 ..	2 10 0 .. Sept, 1862
12000 Copper Miners of England	25 0 0 ..	..	..	..	7 14 percent	Half-yearly
40000 Ditto ditto (stock), 100 0 0 ..	..	..	..	..	1 percent	Half-yearly
1055 Croftock Moor (copper), St. Cleer	8 0 0 ..	..	..	..	7 12 0 ..	0 4 0 .. July, 1862
612 Crenglawn and Penkevil, St. Columb	..	..	..	..	0 10 0 ..	0 10 0 .. Jan, 1863
867 Cwm Eifin (lead) Cardiganshire [L.]	7 10 0 ..	..	..	..	3 0 0 ..	6 15 0 .. June, 1863
128 Cwmystrad (lead), Cardiganshire	60 0 0 ..	..	..	..	251 10 0 ..	4 0 0 .. Mar, 1863
380 Derwent Mines (sl.-lead), Durham	200 0 0 ..	..	..	..	147 0 0 ..	3 0 0 .. June, 1863
1724 Devon Gt. Con. (cop.), Tavistock [S.E.]	1 0 0 ..	545	..	..	440 450 ..	..
368 Dolcoath (copper, tin), Camborne	12 17 6 ..	..	..	..	854 0 ..	9 0 0 .. May, 1863
12880 Drake Walls (tin, copper), Calstock	2 1 0 ..	1%	15 1%	..	550 ..	..
3000 Dwyngwyn (lead), Wales	13 6 ..	..	..	..	717 10 0 ..	8 0 0 .. June, 1863
512 East Bassett (cop.), Redruth [S.E.]	20 16 0 ..	83	..	..	0 17 0 ..	2 0 0 .. Jan, 1863
144 East Cadron (copper), St. Cleer [S.E.]	3 14 6 ..	28	..	..	109 0 ..	2 0 0 .. May, 1863
380 East Durran (lead), Cardiganshire	32 0 0 ..	..	..	..	6 15 0 ..	0 17 6 .. April, 1863
138 East Foss (tin, copper), Pool, Illogan	24 8 0 ..	..	..	..	85 10 0 ..	1 0 0 .. Mar, 1863
2600 Foxdale (lead), Isle of Man [L.]	25 0 0 ..	..	..	..	850 0 ..	8 0 0 .. April, 1863
8000 Frank Mills (lead), Devon	3 18 6 ..	..	..	..	..	..
1788 Great Wheal Fortune (tin), Breage	18 6 0 ..	36%	35 36	..	..	..
6000 Great Wh. Vor (tin, cop.), Helston [S.E.]	40 0 0 ..	..	..	..	61 7 ..	..
10240 Gunn Lake (Clitters) Adit	3 0 0 ..	..	..	..	..	..
10244 Hardestock (ld.), near Liskeard [S.E.]	8 10 0 ..	43	..	..	42 44 ..	..
10600 Hibernian Mine Company	92 6 ..	..	..	..	..	..
460 Lisburn (lead), Cardiganshire, Wales	18 15 0 ..	..	..	..	403 19 0 ..	4 0 0 .. Mar, 1863
9000 Marks Valley (copper), Cardon	14 10 0 ..	61%	6 6 1%	..	..	..
1800 Miners Mining Co. [L.], (ld.), Wrexham	25 0 0 ..	..	..	..	114 18 0 ..	7 0 0 .. May, 1863
20000 Mining Co. of Ireland (cop., lead, coal)	7 0 0 ..	..	..	..	15 17 7 ..	0 11 2 .. Jan, 1863
640 Mount Pleasant (lead), Mold	4 0 0 ..	..	..	..	18 18 1 ..	0 7 6 .. Aug, 1862
40000 Mwyndy (iron ore) [L. £4] [S.E.]	2 10 0 ..	..	..	..	0 2 0 ..	0 2 0 .. Mar, 1863
250 Nanty Mines (lead), Montgomery	20 0 0 ..	..	..	..	1 0 0 ..	1 0 0 .. Mar, 1863
8926 North Treaserry (copper), St. Agnes	1 9 0 ..	..	..	..	0 7 6 ..	0 1 6 .. June, 1863
5000 Orsadd (lead), Flintshire	0 0 8 ..	..	..	..	0 10 4 ..	0 8 0 .. Mar, 1863
Par Consols (cop.), St. Blazey [S.E.]	1 2 6 ..	..	..	..	36 19 0 ..	2 0 2 .. Mar, 1863
300 Parys Mines (copper), Anglesey [L.]	50 0 0 ..	..	..	..	57 10 0 ..	0 10 0 .. Jan, 1863
1772 Polberno (tin), St. Agnes	..	..	..	..	7 9 6 ..	0 10 0 .. April, 1863
123 Providence (tin), Umy Leistant [S.E.]	10 6 7 ..	42	41 42	..	68 10 0 ..	1 5 0 .. May, 1863
6000 Rosehill Hill and Ransom United	2 12 0 ..	..	..	..	0 10 0 ..	0 1 6 .. June, 1863
16 Rhosneigr (lead)	50 0 0 ..	..	..	..	..	..
1212 South Cadron (cop.), St. Cleer [S.E.]	1 5 0 ..	420	41 470	..	..	..
1212 South Cadron (cop.), St. Ives [S.E.]	1 5 0 ..	420	41 470	..	..	..
1212 South Cadron (cop.), St. Just, Cornwall	53 ..	51 53	..	..	74 10 0 ..	1 0 0 .. May, 1863
8000 South Eastmouth (lead), Christow	1 0 0 ..	31%	..	..	0 5 0 ..	0 5 0 .. Dec, 1862
496 S. Wh. Francis (cop.), Illogan [S.E.]	18 18 9 ..	..	..	..	367 5 0 ..	1 0 0 .. May, 1863
1024 South Woodley	..	..	..	..	0 6 0 ..	0 6 0 .. June, 1863
280 Spears Moor (tin, copper), St. Just	31 17 9 ..	..	..	..	9 18 0 ..	1 0 0 .. June, 1863
940 St. Ives Consols (tin), St. Just	8 0 0 ..	..	..	..	486 10 0 ..	0 10 0 .. May, 1863
6000 Tincroft (cop.), Pool, Illogan [S.E.]	9 0 0 ..	22	21 22	..	..	..
1036 Trumpet Consols (near Holston) 11 10 0 ..	..	..	..	..	11 0 0 ..	2 0 0 .. Mar, 1863
4200 Vigras and Clogau (copper) [L. £6] ..	2 15 0 ..	..	..	..	4 12 6 ..	1 0 0 .. Oct, 1862
6000 West Bassett (copper), Illogan [S.E.]	1 10 0 ..	..	..	..	23 17 0 ..	0 6 0 .. May, 1863
1024 West Cadron (cop.), Liskeard [S.E.]	5 0 0 ..	24 1%	24 25	..	101 1 3 ..	0 10 0 .. Oct, 1862
3000 West Chiverton (lead), Perranzabuloe	..	..	..	..	..	..
256 West Damself (copper), Gwennap	38 10 0 ..	..	..	..	46 0 0 ..	1 0 0 .. Jan, 1863
6400 West Fowey Consols (tin and copper)	7 10 0 ..	..	..	..	0 19 0 ..	0 3 0 .. May, 1863
1024 West Penstronal	4 0 ..	..	..	..	2 19 6 ..	2 19 6 .. May, 1863
400 W. Wh. Seton (cop.), Camborne [S.E.]	47 10 0 ..	245	230 235	..	..	..
512 Wheal Bassett (copper), Illogan [S.E.]	8 2 6 ..	70	67 70	..	588 0 0 ..	5 0 0 .. June, 1863
1000 Wheal Bassett and Grylls (tin)	7 0 0 ..	21	21 22	..	..	..
2900 Wh. Clifford Amalgamated (cop.), Gwen. 30 0 ..	25 ..	25 29 31	..	..	..	..
1024 Wheal Grylls (tin), Perranporth	2 4 0 ..	33	30 38	..	..	..
4800 Wh. Ludcott and Wrey (lead), St. Ives	2 10 8 ..	41%	35 3%	..	..	..
896 Wh. Margaret (tin), Umy Leil [S.E.]	9 17 6 ..	35	34 35	..	..	..
1000 Wh. Mary (tin), Lelant	36 2 6 ..	..	..	..	284 5 0 ..	4 0 0 .. Mar, 1863
1024 Wh. Mary (Adm.), Menheniot [S.E.]	8 0 0 ..	14	12 13	..	57 7 0 ..	0 10 0 .. Mar, 1863
80 Wh. Owles (tin), St. Just, Cornwall	70 0 0 ..	..	..	..	323 3 0 ..	5 0 0 .. May, 1863
356 Wheat Seton (tin, copper), Camborne	58 10 0 ..	230	225 230	..	153 15 0 ..	3 0 0 .. June, 1863
1040 Wh. Trellawny (sl.-ld.), Liskeard [S.E.]	5 17 0 ..	17	16% 17%	..	47 2 6 ..	0 10 0 .. June, 1863
5000 Wicklow (copper) [L.], Wicklow	8 0 0 ..	..	..	..	44 17 6 ..	1 0 0 .. May, 1863

* Dividends paid every two months. † Dividends paid every three months.

MINES WITH DIVIDENDS IN ABEYANCE.

200 Cefn Bryn Weaver (lead), Cardiganshire	32 0 0 ..	..	..	..	9 0 0 ..	4 0 0 .. April, 1861
226 Conduffor (cop.), Camborne	35 0 0 ..	..	..	..	85 0 0 ..	2 0 0 .. June, 1863
2430 Cook's Kitchen (copper), Illogan	17 0 9 ..	27%	25 1%	26 1%	1 7 0 ..	0 7 0 .. May, 1863
4076 Devon and Cornwall (copper)	5 16 3 ..	..	..	..	0 10 0 ..	0 2 6 .. Feb, 1862
4726 Ding Dong (tin), Guvna	40 15 6 ..	..	..	..	16 7 0 ..	1 10 0 .. Mar, 1863
940 Fowey Consols (copper), Tywardreath	4 0 0 ..	..	..	..	41 9 0 ..	0 3 0 .. June, 1863
6000 Great South Tolgois [S.E.], Redruth	14 16 4 ..	5	45 5 ..	..	7 18 6 ..	0 5 0 .. Dec, 1862
5000 Great South Tolgois [S.E.], Redruth	14 16 4 ..	5	45 5 ..	..	7 18 6 ..	0 5 0 .. Dec, 1862
5000 Great South Tolgois [S.E.], Redruth	14 16 4 ..	5	45 5 ..	..	7 18 6 ..	0 5 0 .. Dec, 1862
5000 Great South Tolgois [S.E.], Redruth	14 16 4 ..	5	45 5 ..	..	7 18 6 ..	0 5 0 .. Dec, 1862
5000 Great South Tolgois [S.E.], Redruth	14 16 4 ..	5	45 5 ..	..	7 18 6 ..	0